

## Definitions of Historic Events for IntelliNode

**Table 1. Event Categories and Codes**

| Category Name | Category Code |
|---------------|---------------|
| DAT           | 1             |
| UIM           | 2             |
| DNP           | 3             |
| LOG           | 4             |
| SUM           | 5             |
| CFM           | 11            |
| IIM           | 22            |
| UTL           | 24            |
| NET           | 27            |
| EVT           | 30            |
| RTL           | 31            |

**Table 2. Types of Additional Data Items for Historic Events (156 items)**

| Data Type Name     | Represented As | Type Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
|--------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|--|--------|-------|-------------|---|------------|----------------|----|----------------|---------------------|----|--------------|---------------------------|----|----------------|--------------------------------|----|--------------|----------------------------|----|-----------|-------------------|----|---------------|---------------------|----|----------------|--------------------|---|---------------|------------------------|----|-------------|------------------------------|
| AccessDeniedReason | UINT16         | <table> <tr> <th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr> <td>1</td><td>NoSession</td><td>No Session</td></tr> <tr> <td>2</td><td>SessIDMismatch</td><td>Session ID Mismatch</td></tr> <tr> <td>3</td><td>CredMismatch</td><td>User Credentials Mismatch</td></tr> <tr> <td>4</td><td>NoValidAuthObj</td><td>No Valid Authentication Object</td></tr> <tr> <td>5</td><td>InsuffRights</td><td>Insufficient Access Rights</td></tr> <tr> <td>6</td><td>BadData</td><td>Bad Data</td></tr> <tr> <td>7</td><td>RmtNotAllowed</td><td>Remote Not Allowed</td></tr> <tr> <td>8</td><td>WiFiNotAllowed</td><td>WiFi Not Allowed</td></tr> <tr> <td>9</td><td>BlockingClock</td><td>Blocking Clock Running</td></tr> <tr> <td>10</td><td>MaxAttempts</td><td>Max Access Attempts Exceeded</td></tr> </table> | Enumeration |  |  | Binary | Value | Description | 1 | NoSession  | No Session     | 2  | SessIDMismatch | Session ID Mismatch | 3  | CredMismatch | User Credentials Mismatch | 4  | NoValidAuthObj | No Valid Authentication Object | 5  | InsuffRights | Insufficient Access Rights | 6  | BadData   | Bad Data          | 7  | RmtNotAllowed | Remote Not Allowed  | 8  | WiFiNotAllowed | WiFi Not Allowed   | 9 | BlockingClock | Blocking Clock Running | 10 | MaxAttempts | Max Access Attempts Exceeded |
| Enumeration        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| Binary             | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 1                  | NoSession      | No Session                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 2                  | SessIDMismatch | Session ID Mismatch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 3                  | CredMismatch   | User Credentials Mismatch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 4                  | NoValidAuthObj | No Valid Authentication Object                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 5                  | InsuffRights   | Insufficient Access Rights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 6                  | BadData        | Bad Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 7                  | RmtNotAllowed  | Remote Not Allowed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 8                  | WiFiNotAllowed | WiFi Not Allowed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 9                  | BlockingClock  | Blocking Clock Running                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 10                 | MaxAttempts    | Max Access Attempts Exceeded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| Action             | UINT16         | <p>Action in action path.</p> <table> <tr> <th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr> <td>4</td><td>ClsForXfer</td><td>Close for xfer</td></tr> <tr> <td>20</td><td>CtrctReq</td><td>Contract request</td></tr> <tr> <td>21</td><td>CtrctEnd</td><td>Contract Terminate</td></tr> <tr> <td>30</td><td>BlockRecl</td><td>Block recloser</td></tr> <tr> <td>31</td><td>UnBlkRecl</td><td>Unblock recloser</td></tr> <tr> <td>33</td><td>BlkGdTrip</td><td>Block ground trip</td></tr> <tr> <td>34</td><td>UnblkGdTrip</td><td>Unblock ground trip</td></tr> <tr> <td>36</td><td>AltSettings</td><td>Alternate settings</td></tr> </table>                                                                                                                                                             | Enumeration |  |  | Binary | Value | Description | 4 | ClsForXfer | Close for xfer | 20 | CtrctReq       | Contract request    | 21 | CtrctEnd     | Contract Terminate        | 30 | BlockRecl      | Block recloser                 | 31 | UnBlkRecl    | Unblock recloser           | 33 | BlkGdTrip | Block ground trip | 34 | UnblkGdTrip   | Unblock ground trip | 36 | AltSettings    | Alternate settings |   |               |                        |    |             |                              |
| Enumeration        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| Binary             | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 4                  | ClsForXfer     | Close for xfer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 20                 | CtrctReq       | Contract request                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 21                 | CtrctEnd       | Contract Terminate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 30                 | BlockRecl      | Block recloser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 31                 | UnBlkRecl      | Unblock recloser                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 33                 | BlkGdTrip      | Block ground trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 34                 | UnblkGdTrip    | Unblock ground trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |
| 36                 | AltSettings    | Alternate settings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |  |  |        |       |             |   |            |                |    |                |                     |    |              |                           |    |                |                                |    |              |                            |    |           |                   |    |               |                     |    |                |                    |   |               |                        |    |             |                              |



## Definitions of Historic Events

|                              |                    | <table><tr><td>37</td><td>Normal</td><td>Normal</td></tr><tr><td>200</td><td>ActPathDone</td><td>Action path done</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37                           | Normal | Normal | 200    | ActPathDone | Action path done |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
|------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------|--------|--------|-------------|------------------|-------|-----------------|-----------------------------------|---|----------------|-------------------------------------------------------|---|----------------|---------------------|---|--------------------|--------------------------------|---|-------------------|-----------------------------------------------------|---|--------------------|----------------------------|---|----------------|---------------------------------------|---|----------------|---------------------------|---|-----------------|-----------------------------|---|-------------|-------------------------|
| 37                           | Normal             | Normal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 200                          | ActPathDone        | Action path done                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| ActiveURBECClassMask         | UINT16             | <div>Bit mask - zero or more of the following OR-ed 0x02 - class 1 active 0x04 - class 2 active 0x08 - class 3 active</div> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>2</td><td>Cls1Active</td><td>class 1 active</td></tr><tr><td>4</td><td>Cls2Active</td><td>class 2 active</td></tr><tr><td>8</td><td>Cls3Active</td><td>class 3 active</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Enumeration                  |        |        | Binary | Value       | Description      | 2     | Cls1Active      | class 1 active                    | 4 | Cls2Active     | class 2 active                                        | 8 | Cls3Active     | class 3 active      |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 2                            | Cls1Active         | class 1 active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 4                            | Cls2Active         | class 2 active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 8                            | Cls3Active         | class 3 active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Agent                        | UINT16             | <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Numeric Type, Range: 0-65535 |        | Action | Value  | Multiplier  | 1                | Adder | 0               |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| AverageLoad                  | UINT16             | <div>Averaged Load</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Numeric Type, Range: 0-65535 |        | Action | Value  | Multiplier  | 1                | Adder | 0               |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| BMMRESULT                    | UINT16             | <div>BMM RESULT</div> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>BMMRESSUCS</td><td>BMM Result is Successful</td></tr><tr><td>1</td><td>BMMRESBADREQ</td><td>BMM Result is bad</td></tr><tr><td>2</td><td>BMMRESBUSY</td><td>BMM Result is busy</td></tr><tr><td>3</td><td>BMMRESBMMUNAVA</td><td>BMM Result is unavailable</td></tr><tr><td>4</td><td>BMMRESBMMREADFAIL</td><td>BMM Result failed to read</td></tr><tr><td>5</td><td>BMMRESBMMWRITEFAIL</td><td>BMM Result failed to write</td></tr><tr><td>6</td><td>BMMRESRENMATCO</td><td>BMM Result Read but not matching copy</td></tr><tr><td>7</td><td>BMMRESOVERFLOW</td><td>BMM Result has overflowed</td></tr><tr><td>8</td><td>BMMRESBADRECORD</td><td>BMM Result has a bad record</td></tr><tr><td>9</td><td>BMMRESNOFON</td><td>BMM Result is not found</td></tr></table> | Enumeration                  |        |        | Binary | Value       | Description      | 0     | BMMRESSUCS      | BMM Result is Successful          | 1 | BMMRESBADREQ   | BMM Result is bad                                     | 2 | BMMRESBUSY     | BMM Result is busy  | 3 | BMMRESBMMUNAVA     | BMM Result is unavailable      | 4 | BMMRESBMMREADFAIL | BMM Result failed to read                           | 5 | BMMRESBMMWRITEFAIL | BMM Result failed to write | 6 | BMMRESRENMATCO | BMM Result Read but not matching copy | 7 | BMMRESOVERFLOW | BMM Result has overflowed | 8 | BMMRESBADRECORD | BMM Result has a bad record | 9 | BMMRESNOFON | BMM Result is not found |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 0                            | BMMRESSUCS         | BMM Result is Successful                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 1                            | BMMRESBADREQ       | BMM Result is bad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 2                            | BMMRESBUSY         | BMM Result is busy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 3                            | BMMRESBMMUNAVA     | BMM Result is unavailable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 4                            | BMMRESBMMREADFAIL  | BMM Result failed to read                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 5                            | BMMRESBMMWRITEFAIL | BMM Result failed to write                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 6                            | BMMRESRENMATCO     | BMM Result Read but not matching copy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 7                            | BMMRESOVERFLOW     | BMM Result has overflowed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 8                            | BMMRESBADRECORD    | BMM Result has a bad record                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 9                            | BMMRESNOFON        | BMM Result is not found                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| BMMSTATE                     | UINT16             | <div>BMM STATE</div> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>BMM_STATE_READY</td><td>BMM is ready to process API calls</td></tr><tr><td>1</td><td>BMM_STATE_BUSY</td><td>BMM is busy processig an API call or with maintenance</td></tr><tr><td>2</td><td>BMM_STATE_INIT</td><td>BMM is initializing</td></tr><tr><td>3</td><td>BMMSTATNOTDETECTED</td><td>BMM hardware is not accessible</td></tr><tr><td>4</td><td>BMM_STATE_ERROR</td><td>A fatal run-time error encountered during operation</td></tr></table>                                                                                                                                                                                                                                                                                                                   | Enumeration                  |        |        | Binary | Value       | Description      | 0     | BMM_STATE_READY | BMM is ready to process API calls | 1 | BMM_STATE_BUSY | BMM is busy processig an API call or with maintenance | 2 | BMM_STATE_INIT | BMM is initializing | 3 | BMMSTATNOTDETECTED | BMM hardware is not accessible | 4 | BMM_STATE_ERROR   | A fatal run-time error encountered during operation |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 0                            | BMM_STATE_READY    | BMM is ready to process API calls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 1                            | BMM_STATE_BUSY     | BMM is busy processig an API call or with maintenance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 2                            | BMM_STATE_INIT     | BMM is initializing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 3                            | BMMSTATNOTDETECTED | BMM hardware is not accessible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |
| 4                            | BMM_STATE_ERROR    | A fatal run-time error encountered during operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |        |        |        |             |                  |       |                 |                                   |   |                |                                                       |   |                |                     |   |                    |                                |   |                   |                                                     |   |                    |                            |   |                |                                       |   |                |                           |   |                 |                             |   |             |                         |

| BooleanTrueFalse             | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>false</td><td>false</td></tr><tr><td>1</td><td>true</td><td>true</td></tr></table>                                                                                                                                                                                                                                                                                                                                                               | Enumeration                  |  |        | Binary | Value      | Description | 0     | false              | false                                  | 1 | true              | true                         |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
|------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|--------|------------|-------------|-------|--------------------|----------------------------------------|---|-------------------|------------------------------|---|--------------|--------------------------------------|---|---------------|------------------------------------------|---|--------------|---------------------------------------|---|-------------|----------------|---|--------------|------------------|
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 0                            | false              | false                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 1                            | true               | true                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| bufsiz                       | UINT16             | <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                       | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0                  |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| CallbackStatus               | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>MsgRespSucc</td><td>Message response received successfully</td></tr><tr><td>1</td><td>MsgNoResp</td><td>Message received no response</td></tr><tr><td>2</td><td>MsgExpired</td><td>Message expired on the transmit list</td></tr><tr><td>3</td><td>RespBadData</td><td>Message response data contained an error</td></tr><tr><td>4</td><td>MsgNoPeerDev</td><td>Message had no associated peer device</td></tr></table>                          | Enumeration                  |  |        | Binary | Value      | Description | 0     | MsgRespSucc        | Message response received successfully | 1 | MsgNoResp         | Message received no response | 2 | MsgExpired   | Message expired on the transmit list | 3 | RespBadData   | Message response data contained an error | 4 | MsgNoPeerDev | Message had no associated peer device |   |             |                |   |              |                  |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 0                            | MsgRespSucc        | Message response received successfully                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 1                            | MsgNoResp          | Message received no response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 2                            | MsgExpired         | Message expired on the transmit list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 3                            | RespBadData        | Message response data contained an error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 4                            | MsgNoPeerDev       | Message had no associated peer device                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| ClearPRBlocker               | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>MasterBlks</td><td>Master Blocks</td></tr><tr><td>1</td><td>SetptBlks</td><td>Setpoint Blocks</td></tr></table>                                                                                                                                                                                                                                                                                                                                  | Enumeration                  |  |        | Binary | Value      | Description | 0     | MasterBlks         | Master Blocks                          | 1 | SetptBlks         | Setpoint Blocks              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 0                            | MasterBlks         | Master Blocks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 1                            | SetptBlks          | Setpoint Blocks                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| ClearPRonHLTRem              | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>ClrPRonHLTRemDisab</td><td>Disabled</td></tr><tr><td>1</td><td>ClrPRonHLTRemEnab</td><td>Enabled</td></tr><tr><td>2</td><td>PRsetBySCADA</td><td>PR Set By SCADA</td></tr><tr><td>3</td><td>PRsetByLocCmd</td><td>PR Set By Loc Cmd</td></tr><tr><td>4</td><td>PRsetByAux</td><td>PR Set By Aux</td></tr><tr><td>5</td><td>PRsetBySTMM</td><td>PR Set By STMM</td></tr><tr><td>6</td><td>PRsetByUnKwn</td><td>PR SetBy Unknown</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 0     | ClrPRonHLTRemDisab | Disabled                               | 1 | ClrPRonHLTRemEnab | Enabled                      | 2 | PRsetBySCADA | PR Set By SCADA                      | 3 | PRsetByLocCmd | PR Set By Loc Cmd                        | 4 | PRsetByAux   | PR Set By Aux                         | 5 | PRsetBySTMM | PR Set By STMM | 6 | PRsetByUnKwn | PR SetBy Unknown |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 0                            | ClrPRonHLTRemDisab | Disabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 1                            | ClrPRonHLTRemEnab  | Enabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 2                            | PRsetBySCADA       | PR Set By SCADA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 3                            | PRsetByLocCmd      | PR Set By Loc Cmd                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 4                            | PRsetByAux         | PR Set By Aux                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 5                            | PRsetBySTMM        | PR Set By STMM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 6                            | PRsetByUnKwn       | PR SetBy Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| CoachRejectionCode           | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>Old</td><td>Old</td></tr><tr><td>2</td><td>duplicate</td><td>duplicate</td></tr><tr><td>3</td><td>CRCBad</td><td>CRC bad</td></tr></table>                                                                                                                                                                                                                                                                                                       | Enumeration                  |  |        | Binary | Value      | Description | 1     | Old                | Old                                    | 2 | duplicate         | duplicate                    | 3 | CRCBad       | CRC bad                              |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 1                            | Old                | Old                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 2                            | duplicate          | duplicate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| 3                            | CRCBad             | CRC bad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| CommErrorCode                | UINT16             | Communications error code<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                          | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0                  |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| ConfigCurrentDir1            | UINT16             | Current Config Direction1<br><table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                              | Enumeration                  |  |        | Binary | Value      | Description |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                    |                                        |   |                   |                              |   |              |                                      |   |               |                                          |   |              |                                       |   |             |                |   |              |                  |

## Definitions of Historic Events

|                              |                 | <table><tr><td>1</td><td>XtoY</td><td>X to Y</td></tr><tr><td>2</td><td>YtoX</td><td>Y to X</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1                            | XtoY | X to Y | 2      | YtoX       | Y to X      |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
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| 1                            | XtoY            | X to Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 2                            | YtoX            | Y to X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| connectID                    | UINT16          | <div>Connection ID</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Numeric Type, Range: 0-65535 |      | Action | Value  | Multiplier | 1           | Adder | 0            |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| ConnectionID                 | UINT16          | <div>ConnectionID</div> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>CIDUndefined</td><td>CID Undefined</td></tr><tr><td>1</td><td>CIDGeneral</td><td>CID General</td></tr><tr><td>2</td><td>CIDIInternalDNP</td><td>CID IInternal DNP</td></tr><tr><td>3</td><td>CIDCoach</td><td>CID Coach</td></tr><tr><td>4</td><td>CIDRunner</td><td>CID Runner</td></tr><tr><td>5</td><td>CIDContractAgt</td><td>CID Contract Agent</td></tr><tr><td>6</td><td>CIDNetlistXfer</td><td>CID Netlist Xfer</td></tr><tr><td>7</td><td>CIDCoraAlleyOop</td><td>CID CoraAlley Oop</td></tr><tr><td>8</td><td>CIDIT2Events</td><td>CID IT2 Events</td></tr><tr><td>9</td><td>CIDProtection</td><td>CID Protection</td></tr><tr><td>10</td><td>CIDDATLoadMgmt</td><td>CID DAT Load Mgmt</td></tr><tr><td>11</td><td>CIDCECSignal</td><td>CID CEC Signal</td></tr><tr><td>12</td><td>CIDDIag</td><td>CID Diag</td></tr><tr><td>13</td><td>CIDRemoteXmit</td><td>CID Remote Xmit</td></tr><tr><td>16</td><td>CIDNETObjMgmt</td><td>CID NET Object Mgmt</td></tr><tr><td>17</td><td>CIDNETRunner0</td><td>CID NET Runner 0</td></tr><tr><td>18</td><td>CIDNETRunner1</td><td>CID NET Runner 1</td></tr><tr><td>19</td><td>CIDNETRunner2</td><td>CID NET Runner 2</td></tr><tr><td>20</td><td>CIDNETRunner3</td><td>CID NET Runner 3</td></tr><tr><td>21</td><td>CIDNETRunner4</td><td>CID NET Runner 4</td></tr><tr><td>22</td><td>CIDNETRunner5</td><td>CID NET Runner 5</td></tr><tr><td>23</td><td>CIDNETRunner6</td><td>CID NET Runner 6</td></tr><tr><td>24</td><td>CIDNETRunner7</td><td>CID NET Runner 7</td></tr><tr><td>25</td><td>CIDNETRunner8</td><td>CID NET Runner 8</td></tr><tr><td>26</td><td>CIDNETRunner9</td><td>CID NET Runner 9</td></tr><tr><td>27</td><td>CIDNETRunner10</td><td>CID NET Runner 10</td></tr><tr><td>28</td><td>CIDNETRunner11</td><td>CID NET Runner 11</td></tr><tr><td>29</td><td>CIDNETRunner12</td><td>CID NET Runner 12</td></tr><tr><td>30</td><td>CIDNETRunner13</td><td>CID NET Runner 13</td></tr><tr><td>31</td><td>CIDNETRunner14</td><td>CID NET Runner 14</td></tr><tr><td>32</td><td>CIDNETRunner15</td><td>CID NET Runner 15</td></tr></table> | Enumeration                  |      |        | Binary | Value      | Description | 0     | CIDUndefined | CID Undefined | 1 | CIDGeneral | CID General | 2 | CIDIInternalDNP | CID IInternal DNP | 3 | CIDCoach | CID Coach | 4 | CIDRunner | CID Runner | 5 | CIDContractAgt | CID Contract Agent | 6 | CIDNetlistXfer | CID Netlist Xfer | 7 | CIDCoraAlleyOop | CID CoraAlley Oop | 8 | CIDIT2Events | CID IT2 Events | 9 | CIDProtection | CID Protection | 10 | CIDDATLoadMgmt | CID DAT Load Mgmt | 11 | CIDCECSignal | CID CEC Signal | 12 | CIDDIag | CID Diag | 13 | CIDRemoteXmit | CID Remote Xmit | 16 | CIDNETObjMgmt | CID NET Object Mgmt | 17 | CIDNETRunner0 | CID NET Runner 0 | 18 | CIDNETRunner1 | CID NET Runner 1 | 19 | CIDNETRunner2 | CID NET Runner 2 | 20 | CIDNETRunner3 | CID NET Runner 3 | 21 | CIDNETRunner4 | CID NET Runner 4 | 22 | CIDNETRunner5 | CID NET Runner 5 | 23 | CIDNETRunner6 | CID NET Runner 6 | 24 | CIDNETRunner7 | CID NET Runner 7 | 25 | CIDNETRunner8 | CID NET Runner 8 | 26 | CIDNETRunner9 | CID NET Runner 9 | 27 | CIDNETRunner10 | CID NET Runner 10 | 28 | CIDNETRunner11 | CID NET Runner 11 | 29 | CIDNETRunner12 | CID NET Runner 12 | 30 | CIDNETRunner13 | CID NET Runner 13 | 31 | CIDNETRunner14 | CID NET Runner 14 | 32 | CIDNETRunner15 | CID NET Runner 15 |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 0                            | CIDUndefined    | CID Undefined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 1                            | CIDGeneral      | CID General                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 2                            | CIDIInternalDNP | CID IInternal DNP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 3                            | CIDCoach        | CID Coach                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 4                            | CIDRunner       | CID Runner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 5                            | CIDContractAgt  | CID Contract Agent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 6                            | CIDNetlistXfer  | CID Netlist Xfer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 7                            | CIDCoraAlleyOop | CID CoraAlley Oop                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 8                            | CIDIT2Events    | CID IT2 Events                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 9                            | CIDProtection   | CID Protection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 10                           | CIDDATLoadMgmt  | CID DAT Load Mgmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 11                           | CIDCECSignal    | CID CEC Signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 12                           | CIDDIag         | CID Diag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 13                           | CIDRemoteXmit   | CID Remote Xmit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 16                           | CIDNETObjMgmt   | CID NET Object Mgmt                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 17                           | CIDNETRunner0   | CID NET Runner 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 18                           | CIDNETRunner1   | CID NET Runner 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 19                           | CIDNETRunner2   | CID NET Runner 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 20                           | CIDNETRunner3   | CID NET Runner 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 21                           | CIDNETRunner4   | CID NET Runner 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 22                           | CIDNETRunner5   | CID NET Runner 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 23                           | CIDNETRunner6   | CID NET Runner 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 24                           | CIDNETRunner7   | CID NET Runner 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 25                           | CIDNETRunner8   | CID NET Runner 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 26                           | CIDNETRunner9   | CID NET Runner 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 27                           | CIDNETRunner10  | CID NET Runner 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 28                           | CIDNETRunner11  | CID NET Runner 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 29                           | CIDNETRunner12  | CID NET Runner 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 30                           | CIDNETRunner13  | CID NET Runner 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 31                           | CIDNETRunner14  | CID NET Runner 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| 32                           | CIDNETRunner15  | CID NET Runner 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |
| ContractState                | UINT16          | Contract State.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |      |        |        |            |             |       |              |               |   |            |             |   |                 |                   |   |          |           |   |           |            |   |                |                    |   |                |                  |   |                 |                   |   |              |                |   |               |                |    |                |                   |    |              |                |    |         |          |    |               |                 |    |               |                     |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |               |                  |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |    |                |                   |

|                              |                 | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>CActive</td><td>Contract state active</td></tr><tr><td>2</td><td>CReqPend</td><td>Contract state request pending</td></tr><tr><td>3</td><td>CReqUnsent</td><td>Contract state request unsent</td></tr><tr><td>4</td><td>CReqTrav</td><td>Contract state request traveling</td></tr><tr><td>5</td><td>CReqAccept</td><td>Contract state request accepted</td></tr><tr><td>6</td><td>CReqDecline</td><td>Contract state request declined</td></tr><tr><td>7</td><td>CReqDeclContd</td><td>Contract state request decline continuing</td></tr><tr><td>8</td><td>CDslveStart</td><td>Contract state dissolve start</td></tr><tr><td>9</td><td>CDslveContd</td><td>Contract state dissolve continue</td></tr><tr><td>10</td><td>CMaintStart</td><td>Contract state maintenance start</td></tr><tr><td>11</td><td>CMaintTickl</td><td>Contract state maintenance tickle</td></tr><tr><td>12</td><td>CMaintTrav</td><td>Contract state maintenance travel</td></tr><tr><td>13</td><td>CMTravNoFind</td><td>Contract state maintenance travel not found</td></tr><tr><td>14</td><td>CMTrRetNoFnd</td><td>Contract state maint travel return not found</td></tr><tr><td>15</td><td>CMTicklNoFind</td><td>Contract state maintenance tickle not found</td></tr><tr><td>16</td><td>CMTiRetNoFnd</td><td>Contract state maint tickle return not found</td></tr><tr><td>17</td><td>CMaintReact</td><td>Contract state maintenance reactivate contract</td></tr><tr><td>18</td><td>CMNoReact</td><td>Contract state maint don't reactivate here - but continue</td></tr><tr><td>19</td><td>CChk2ndFld</td><td>Contract state request - check 2nd field</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 1     | CActive    | Contract state active                        | 2 | CReqPend    | Contract state request pending | 3 | CReqUnsent      | Contract state request unsent | 4 | CReqTrav | Contract state request traveling | 5 | CReqAccept | Contract state request accepted | 6 | CReqDecline | Contract state request declined | 7 | CReqDeclContd | Contract state request decline continuing | 8 | CDslveStart | Contract state dissolve start | 9 | CDslveContd | Contract state dissolve continue | 10 | CMaintStart | Contract state maintenance start | 11 | CMaintTickl | Contract state maintenance tickle | 12 | CMaintTrav | Contract state maintenance travel | 13 | CMTravNoFind | Contract state maintenance travel not found | 14 | CMTrRetNoFnd | Contract state maint travel return not found | 15 | CMTicklNoFind | Contract state maintenance tickle not found | 16 | CMTiRetNoFnd | Contract state maint tickle return not found | 17 | CMaintReact | Contract state maintenance reactivate contract | 18 | CMNoReact | Contract state maint don't reactivate here - but continue | 19 | CChk2ndFld | Contract state request - check 2nd field |
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| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 1                            | CActive         | Contract state active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 2                            | CReqPend        | Contract state request pending                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 3                            | CReqUnsent      | Contract state request unsent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 4                            | CReqTrav        | Contract state request traveling                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 5                            | CReqAccept      | Contract state request accepted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 6                            | CReqDecline     | Contract state request declined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 7                            | CReqDeclContd   | Contract state request decline continuing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 8                            | CDslveStart     | Contract state dissolve start                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 9                            | CDslveContd     | Contract state dissolve continue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 10                           | CMaintStart     | Contract state maintenance start                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 11                           | CMaintTickl     | Contract state maintenance tickle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 12                           | CMaintTrav      | Contract state maintenance travel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 13                           | CMTravNoFind    | Contract state maintenance travel not found                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 14                           | CMTrRetNoFnd    | Contract state maint travel return not found                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 15                           | CMTicklNoFind   | Contract state maintenance tickle not found                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 16                           | CMTiRetNoFnd    | Contract state maint tickle return not found                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 17                           | CMaintReact     | Contract state maintenance reactivate contract                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 18                           | CMNoReact       | Contract state maint don't reactivate here - but continue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 19                           | CChk2ndFld      | Contract state request - check 2nd field                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| CurrentDirDetectionMethod    | UINT16          | <p>Current Direction Detection Method</p> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>None</td><td>None</td></tr><tr><td>1</td><td>StatusPoint</td><td>Status Point</td></tr><tr><td>2</td><td>CurrentPolarity</td><td>Current Polarity</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Enumeration                  |  |        | Binary | Value      | Description | 0     | None       | None                                         | 1 | StatusPoint | Status Point                   | 2 | CurrentPolarity | Current Polarity              |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 0                            | None            | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 1                            | StatusPoint     | Status Point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 2                            | CurrentPolarity | Current Polarity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| DataLength                   | UINT16          | <p>Length of the data</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0          |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| DATARNR                      | UINT16          | <p>Data runnes working within the time limits</p> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>NETXDATRNR</td><td>Runners are working within timeouts when set</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Enumeration                  |  |        | Binary | Value      | Description | 1     | NETXDATRNR | Runners are working within timeouts when set |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| 1                            | NETXDATRNR      | Runners are working within timeouts when set                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| dctsiz                       | UINT16          | <p>Data Length</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td></td><td></td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |
|                              |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |            |                                              |   |             |                                |   |                 |                               |   |          |                                  |   |            |                                 |   |             |                                 |   |               |                                           |   |             |                               |   |             |                                  |    |             |                                  |    |             |                                   |    |            |                                   |    |              |                                             |    |              |                                              |    |               |                                             |    |              |                                              |    |             |                                                |    |           |                                                           |    |            |                                          |

## Definitions of Historic Events

|                              |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
|------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---|--------|--------|------------|-------------|-------|-----------|-----------|---|-------|-------|
|                              |           | <table><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                            | Adder                        | 0 |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DestinationIndex             | UINT16    | <div>Destination Index</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                         | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DestNodeID                   | UINT16    | <div>NET Destination Node ID</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                   | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| dev                          | UINT16    | <div>Device Type, either a substation or not a substation</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>      | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DeviceIndex                  | UINT16    | <div>local device number of the FN Runner Source Device</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>        | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DeviceNumber                 | UINT16    | <div>Working runner source list in the Runner Source Control</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>   | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DeviceWirepairs              | UINT16    | <div>Number of Device-Wire pairs from prep function</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>            | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |           |   |       |       |
| Numeric Type, Range: 0-65535 |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Action                       | Value     |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Multiplier                   | 1         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Adder                        | 0         |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| DiagTestType                 | UINT16    | <div>Type of diagnostic test</div> <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>Scheduled</td><td>Scheduled</td></tr><tr><td>1</td><td>Quick</td><td>Quick</td></tr></table> | Enumeration                  |   |        | Binary | Value      | Description | 0     | Scheduled | Scheduled | 1 | Quick | Quick |
| Enumeration                  |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Binary                       | Value     | Description                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |           |   |       |       |
| 0                            | Scheduled | Scheduled                                                                                                                                                                                                                                                   |                              |   |        |        |            |             |       |           |           |   |       |       |
| 1                            | Quick     | Quick                                                                                                                                                                                                                                                       |                              |   |        |        |            |             |       |           |           |   |       |       |
| Direction                    | UINT16    | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>Forward</td><td>Forward</td></tr></table>                                                                                       | Enumeration                  |   |        | Binary | Value      | Description | 1     | Forward   | Forward   |   |       |       |
| Enumeration                  |           |                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |           |   |       |       |
| Binary                       | Value     | Description                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |           |   |       |       |
| 1                            | Forward   | Forward                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |           |   |       |       |

|                              |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
|------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------|---------|--------|------------|-------------|-------|-----------|---------------|---|--------------|--------------------|---|---------|----------------|
|                              |              | <table><tr><td>2</td><td>Reverse</td><td>Reverse</td></tr></table>                                                                                                                                                                                                                                                                        | 2                            | Reverse | Reverse |        |            |             |       |           |               |   |              |                    |   |         |                |
| 2                            | Reverse      | Reverse                                                                                                                                                                                                                                                                                                                                   |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DivBy10                      | UINT16       | <div>Divide by 10</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>0.1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                          | Numeric Type, Range: 0-65535 |         | Action  | Value  | Multiplier | 0.1         | Adder | 0         |               |   |              |                    |   |         |                |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 0.1          |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPAddress                   | UINT16       | <div>Values represented in hexadecimal code</div> <table><tr><td colspan="2">Numeric Type, Range: 1-65519</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table> <table><tr><td colspan="2">Presentation</td></tr><tr><td>Binary</td><td>{0:X2}</td></tr></table> | Numeric Type, Range: 1-65519 |         | Action  | Value  | Multiplier | 1           | Adder | 0         | Presentation  |   | Binary       | {0:X2}             |   |         |                |
| Numeric Type, Range: 1-65519 |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Presentation                 |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Binary                       | {0:X2}       |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPAppControl                | UINT16       | <div>DNP application control byte</div> <table><tr><td colspan="2">Numeric Type, Range: 0-255</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                              | Numeric Type, Range: 0-255   |         | Action  | Value  | Multiplier | 1           | Adder | 0         |               |   |              |                    |   |         |                |
| Numeric Type, Range: 0-255   |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPAppFunctionCode           | UINT16       | <div>DNP Application Function Code</div> <table><tr><td colspan="2">Numeric Type, Range: 0-255</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                             | Numeric Type, Range: 0-255   |         | Action  | Value  | Multiplier | 1           | Adder | 0         |               |   |              |                    |   |         |                |
| Numeric Type, Range: 0-255   |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPDLAction                  | UINT16       | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>RecReinit</td><td>record reinit</td></tr><tr><td>2</td><td>ResetSeqOnly</td><td>reset seq num only</td></tr><tr><td>3</td><td>NewPeer</td><td>new peer added</td></tr></table>                                | Enumeration                  |         |         | Binary | Value      | Description | 1     | RecReinit | record reinit | 2 | ResetSeqOnly | reset seq num only | 3 | NewPeer | new peer added |
| Enumeration                  |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Binary                       | Value        | Description                                                                                                                                                                                                                                                                                                                               |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| 1                            | RecReinit    | record reinit                                                                                                                                                                                                                                                                                                                             |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| 2                            | ResetSeqOnly | reset seq num only                                                                                                                                                                                                                                                                                                                        |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| 3                            | NewPeer      | new peer added                                                                                                                                                                                                                                                                                                                            |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPObjectType                | UINT16       | <div>DNP Object Type</div> <table><tr><td colspan="2">Numeric Type, Range: 0-255</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                           | Numeric Type, Range: 0-255   |         | Action  | Value  | Multiplier | 1           | Adder | 0         |               |   |              |                    |   |         |                |
| Numeric Type, Range: 0-255   |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPObjectVariation           | UINT16       | <div>DNP Object Variation</div> <table><tr><td colspan="2">Numeric Type, Range: 0-255</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                      | Numeric Type, Range: 0-255   |         | Action  | Value  | Multiplier | 1           | Adder | 0         |               |   |              |                    |   |         |                |
| Numeric Type, Range: 0-255   |              |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                           |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |
| DNPOutputBlockStatusCode     | UINT16       | DNP Output Block Status Code                                                                                                                                                                                                                                                                                                              |                              |         |         |        |            |             |       |           |               |   |              |                    |   |         |                |

## Definitions of Historic Events

|                              |                | <table><tr><th colspan="2">Numeric Type, Range: 0-255</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Numeric Type, Range: 0-255   |  | Action | Value  | Multiplier | 1           | Adder | 0            |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
|------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|--------|------------|-------------|-------|--------------|--------------------|----|--------------|------------------------|----|---------------|----------------------|-----|-------------|---------------------------|-----|----------------|-------------------------|-----|---------------|------------------------|------|-----------|-----------------|------|---------------|----------------------------|
| Numeric Type, Range: 0-255   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Action                       | Value          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Multiplier                   | 1              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Adder                        | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| DNPPointCode                 | UINT16         | Internal DNP point code<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0            |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Numeric Type, Range: 0-65535 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Action                       | Value          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Multiplier                   | 1              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Adder                        | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| DNPPointType                 | UINT16         | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>Binary</td><td>binary</td></tr><tr><td>2</td><td>Analog</td><td>analog</td></tr><tr><td>3</td><td>Counter</td><td>counter</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Enumeration                  |  |        | Binary | Value      | Description | 1     | Binary       | binary             | 2  | Analog       | analog                 | 3  | Counter       | counter              |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Enumeration                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Binary                       | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 1                            | Binary         | binary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 2                            | Analog         | analog                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 3                            | Counter        | counter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| DNPTranspFunctionCode        | UINT16         | DNP transport function code<br><table><tr><th colspan="2">Numeric Type, Range: 0-255</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Numeric Type, Range: 0-255   |  | Action | Value  | Multiplier | 1           | Adder | 0            |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Numeric Type, Range: 0-255   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Action                       | Value          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Multiplier                   | 1              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Adder                        | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| DNPTransportHeader           | UINT16         | DNP transport header byte<br><table><tr><th colspan="2">Numeric Type, Range: 0-255</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Numeric Type, Range: 0-255   |  | Action | Value  | Multiplier | 1           | Adder | 0            |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Numeric Type, Range: 0-255   |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Action                       | Value          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Multiplier                   | 1              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Adder                        | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| EntryPointDevice             | UINT16         | Indication that this control is the Entry Point Device<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0            |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Numeric Type, Range: 0-65535 |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Action                       | Value          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Multiplier                   | 1              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Adder                        | 0              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| ErrorCodeNETX                | UINT16         | Error code for the Netx system<br><table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NETX_SUCCESS</td><td>Netx is successful</td></tr><tr><td>32</td><td>NETX_BAD_VER</td><td>Netx has a bad version</td></tr><tr><td>64</td><td>NETX_NO_NETVW</td><td>Netx has no Net view</td></tr><tr><td>128</td><td>NETX_NO_RTU</td><td>No RTU was found for NETX</td></tr><tr><td>256</td><td>NETX_BAD_NETVW</td><td>Netx has a bad Net view</td></tr><tr><td>512</td><td>NETX_OBJ_FAIL</td><td>Netx object has failed</td></tr><tr><td>1024</td><td>NETX_FAIL</td><td>Netx has failed</td></tr><tr><td>2048</td><td>NETX_OBJ_QUED</td><td>Netx object has been quued</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 0     | NETX_SUCCESS | Netx is successful | 32 | NETX_BAD_VER | Netx has a bad version | 64 | NETX_NO_NETVW | Netx has no Net view | 128 | NETX_NO_RTU | No RTU was found for NETX | 256 | NETX_BAD_NETVW | Netx has a bad Net view | 512 | NETX_OBJ_FAIL | Netx object has failed | 1024 | NETX_FAIL | Netx has failed | 2048 | NETX_OBJ_QUED | Netx object has been quued |
| Enumeration                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| Binary                       | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 0                            | NETX_SUCCESS   | Netx is successful                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 32                           | NETX_BAD_VER   | Netx has a bad version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 64                           | NETX_NO_NETVW  | Netx has no Net view                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 128                          | NETX_NO_RTU    | No RTU was found for NETX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 256                          | NETX_BAD_NETVW | Netx has a bad Net view                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 512                          | NETX_OBJ_FAIL  | Netx object has failed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 1024                         | NETX_FAIL      | Netx has failed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |
| 2048                         | NETX_OBJ_QUED  | Netx object has been quued                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |  |        |        |            |             |       |              |                    |    |              |                        |    |               |                      |     |             |                           |     |                |                         |     |               |                        |      |           |                 |      |               |                            |

|                              |              | <table><tr><td>4096</td><td>NETX_NOT_RSD</td><td>Netx has not RSD</td></tr><tr><td>8192</td><td>NETX_BAD_CRC</td><td>Netx has a bad CRC</td></tr><tr><td>16384</td><td>NETX_NOTACTV</td><td>Netx is not active</td></tr></table>                                                                                                               | 4096                         | NETX_NOT_RSD | Netx has not RSD | 8192   | NETX_BAD_CRC | Netx has a bad CRC | 16384 | NETX_NOTACTV | Netx is not active |     |            |             |     |         |         |
|------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|------------------|--------|--------------|--------------------|-------|--------------|--------------------|-----|------------|-------------|-----|---------|---------|
| 4096                         | NETX_NOT_RSD | Netx has not RSD                                                                                                                                                                                                                                                                                                                               |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 8192                         | NETX_BAD_CRC | Netx has a bad CRC                                                                                                                                                                                                                                                                                                                             |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 16384                        | NETX_NOTACTV | Netx is not active                                                                                                                                                                                                                                                                                                                             |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| EVTboolean                   | UINT16       | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>false</td><td>false</td></tr><tr><td>1</td><td>true</td><td>true</td></tr></table>                                                                                                                                 | Enumeration                  |              |                  | Binary | Value        | Description        | 0     | false        | false              | 1   | true       | true        |     |         |         |
| Enumeration                  |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Binary                       | Value        | Description                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 0                            | false        | false                                                                                                                                                                                                                                                                                                                                          |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 1                            | true         | true                                                                                                                                                                                                                                                                                                                                           |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| ExcessLoad                   | UINT16       | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>ExcessLoad</td><td>Excess Load</td></tr></table>                                                                                                                                                                   | Enumeration                  |              |                  | Binary | Value        | Description        | 0     | ExcessLoad   | Excess Load        |     |            |             |     |         |         |
| Enumeration                  |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Binary                       | Value        | Description                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 0                            | ExcessLoad   | Excess Load                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| ExpressNetViewRow            | UINT16       | <p>Number of entries in row, one for device,one for wire</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                            | Numeric Type, Range: 0-65535 |              | Action           | Value  | Multiplier   | 1                  | Adder | 0            |                    |     |            |             |     |         |         |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| FaultDirection               | UINT16       | <p>Fault Direction Reported to IntelliTeam</p> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>131</td><td>Direction1</td><td>Direction 1</td></tr><tr><td>132</td><td>Direction2</td><td>Direction 2</td></tr><tr><td>255</td><td>Unknown</td><td>Unknown</td></tr></table> | Enumeration                  |              |                  | Binary | Value        | Description        | 131   | Direction1   | Direction 1        | 132 | Direction2 | Direction 2 | 255 | Unknown | Unknown |
| Enumeration                  |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Binary                       | Value        | Description                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 131                          | Direction1   | Direction 1                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 132                          | Direction2   | Direction 2                                                                                                                                                                                                                                                                                                                                    |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| 255                          | Unknown      | Unknown                                                                                                                                                                                                                                                                                                                                        |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| FeederNetCRC                 | UINT16       | <p>CRC of this Feeder Net</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                           | Numeric Type, Range: 0-65535 |              | Action           | Value  | Multiplier   | 1                  | Adder | 0            |                    |     |            |             |     |         |         |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| FeederNetID                  | UINT16       | <p>Feeder Net ID</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                    | Numeric Type, Range: 0-65535 |              | Action           | Value  | Multiplier   | 1                  | Adder | 0            |                    |     |            |             |     |         |         |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| FeederNetIndex               | UINT16       | <p>Feeder Net Index</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                 | Numeric Type, Range: 0-65535 |              | Action           | Value  | Multiplier   | 1                  | Adder | 0            |                    |     |            |             |     |         |         |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Multiplier                   | 1            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Adder                        | 0            |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| FeederNetObjectFlags         | UINT16       | <p>Incoming Feeder Net Flages from ITD</p> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td></td><td></td></tr></table>                                                                                                                                                          | Numeric Type, Range: 0-65535 |              | Action           | Value  |              |                    |       |              |                    |     |            |             |     |         |         |
| Numeric Type, Range: 0-65535 |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
| Action                       | Value        |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |
|                              |              |                                                                                                                                                                                                                                                                                                                                                |                              |              |                  |        |              |                    |       |              |                    |     |            |             |     |         |         |

## Definitions of Historic Events

|                              |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
|------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---|--------|--------|------------|-------------|-------|-----------|------------------|---|----------------|------------------------------------|---|---------------|----------------------------------|-----|----------------|-----------------------|---|------------------|----------------------------------|---|------------------|--------------------------------|---|------------------|----------------------------------|---|----------------|-------------------|-----|----------------|-----------------|
|                              |                  | <table><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Multiplier                   | 1 | Adder  | 0      |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Multiplier                   | 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Adder                        | 0                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| FeederNetObjType             | UINT16           | Type of netlist distribution<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Numeric Type, Range: 0-65535 |   | Action | Value  | Multiplier | 1           | Adder | 0         |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Numeric Type, Range: 0-65535 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Action                       | Value            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Multiplier                   | 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Adder                        | 0                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| FixQuality                   | UINT16           | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>NoSignal</td><td>No Signal</td></tr><tr><td>1</td><td>GPS</td><td>GPS</td></tr><tr><td>2</td><td>DGPS</td><td>DGPS</td></tr><tr><td>3</td><td>PPS</td><td>PPS</td></tr><tr><td>4</td><td>RealTmKinematic</td><td>Real Time Kinematic</td></tr><tr><td>5</td><td>FloatRTK</td><td>Float RTK</td></tr><tr><td>6</td><td>Estimated</td><td>Estimated</td></tr><tr><td>7</td><td>MnlInputMode</td><td>Manual Input Mode</td></tr><tr><td>8</td><td>SimulatMode</td><td>Simulation Mode</td></tr></table>                                                                                                                                                                                                    | Enumeration                  |   |        | Binary | Value      | Description | 0     | NoSignal  | No Signal        | 1 | GPS            | GPS                                | 2 | DGPS          | DGPS                             | 3   | PPS            | PPS                   | 4 | RealTmKinematic  | Real Time Kinematic              | 5 | FloatRTK         | Float RTK                      | 6 | Estimated        | Estimated                        | 7 | MnlInputMode   | Manual Input Mode | 8   | SimulatMode    | Simulation Mode |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 0                            | NoSignal         | No Signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 1                            | GPS              | GPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 2                            | DGPS             | DGPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 3                            | PPS              | PPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 4                            | RealTmKinematic  | Real Time Kinematic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 5                            | FloatRTK         | Float RTK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 6                            | Estimated        | Estimated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 7                            | MnlInputMode     | Manual Input Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 8                            | SimulatMode      | Simulation Mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| FreqTrip                     | UINT16           | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>NoTrip</td><td>No Trip</td></tr><tr><td>1</td><td>FreqTrip</td><td>Freq Trip</td></tr><tr><td>2</td><td>NA</td><td>Not Applicable</td></tr><tr><td>255</td><td>NotProgrammed</td><td>Not Programmed</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Enumeration                  |   |        | Binary | Value      | Description | 0     | NoTrip    | No Trip          | 1 | FreqTrip       | Freq Trip                          | 2 | NA            | Not Applicable                   | 255 | NotProgrammed  | Not Programmed        |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 0                            | NoTrip           | No Trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 1                            | FreqTrip         | Freq Trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 2                            | NA               | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 255                          | NotProgrammed    | Not Programmed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| GPSStatus                    | UINT16           | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>TimePosOK</td><td>Time Position OK</td></tr><tr><td>1</td><td>TPosOKPendStab</td><td>Time Position OK Pending Stability</td></tr><tr><td>2</td><td>TPosOKNoPulse</td><td>Time Position OK No Pulse Signal</td></tr><tr><td>3</td><td>TimePosInvalid</td><td>Time Position Invalid</td></tr><tr><td>4</td><td>DInvalidSLineOdd</td><td>Data Invalid Serial Line Anomaly</td></tr><tr><td>5</td><td>DInvalidSLineErr</td><td>Data Invalid Serial Line Error</td></tr><tr><td>6</td><td>DInvalidSLineSil</td><td>Data Invalid Serial Line Silence</td></tr><tr><td>7</td><td>DisabledByUser</td><td>Disabled By User</td></tr><tr><td>255</td><td>NotInitialized</td><td>Not Initialized</td></tr></table> | Enumeration                  |   |        | Binary | Value      | Description | 0     | TimePosOK | Time Position OK | 1 | TPosOKPendStab | Time Position OK Pending Stability | 2 | TPosOKNoPulse | Time Position OK No Pulse Signal | 3   | TimePosInvalid | Time Position Invalid | 4 | DInvalidSLineOdd | Data Invalid Serial Line Anomaly | 5 | DInvalidSLineErr | Data Invalid Serial Line Error | 6 | DInvalidSLineSil | Data Invalid Serial Line Silence | 7 | DisabledByUser | Disabled By User  | 255 | NotInitialized | Not Initialized |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 0                            | TimePosOK        | Time Position OK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 1                            | TPosOKPendStab   | Time Position OK Pending Stability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 2                            | TPosOKNoPulse    | Time Position OK No Pulse Signal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 3                            | TimePosInvalid   | Time Position Invalid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 4                            | DInvalidSLineOdd | Data Invalid Serial Line Anomaly                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 5                            | DInvalidSLineErr | Data Invalid Serial Line Error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 6                            | DInvalidSLineSil | Data Invalid Serial Line Silence                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 7                            | DisabledByUser   | Disabled By User                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 255                          | NotInitialized   | Not Initialized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| HealingType                  | UINT16           | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>ITII</td><td>IT-II</td></tr><tr><td>2</td><td>RSH</td><td>RSH</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Enumeration                  |   |        | Binary | Value      | Description | 1     | ITII      | IT-II            | 2 | RSH            | RSH                                |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 1                            | ITII             | IT-II                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| 2                            | RSH              | RSH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Hexushort                    | UINT16           | Values represented in hexadecimal code<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Numeric Type, Range: 0-65535 |   | Action | Value  |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Numeric Type, Range: 0-65535 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |
| Action                       | Value            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |   |        |        |            |             |       |           |                  |   |                |                                    |   |               |                                  |     |                |                       |   |                  |                                  |   |                  |                                |   |                  |                                  |   |                |                   |     |                |                 |

|                                      |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
|--------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---|---------------|---------------|---------------------|--------------------|---------------|--------------|-----------------------------------------|---|---------------|-------------------------------------------|---|---------------|--------------------------------------------|---|---------------|--------------------------------------------|
|                                      |               | <table><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table> <table><tr><td><b>Presentation</b></td><td></td></tr><tr><td><b>Binary</b></td><td>{0:X2}</td></tr></table>                                                                                                                                                                                                                                                                                                                                                             | Multiplier                           | 1 | Adder         | 0             | <b>Presentation</b> |                    | <b>Binary</b> | {0:X2}       |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Multiplier                           | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Adder                                | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Presentation</b>                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Binary</b>                        | {0:X2}        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| HLT                                  | UINT16        | <table><tr><td colspan="3"><b>Enumeration</b></td></tr><tr><td><b>Binary</b></td><td><b>Value</b></td><td><b>Description</b></td></tr><tr><td>0</td><td>HLTInactive</td><td>HLT Inactive</td></tr><tr><td>1</td><td>HLTActive</td><td>HLT Active</td></tr></table>                                                                                                                                                                                                                                                                                             | <b>Enumeration</b>                   |   |               | <b>Binary</b> | <b>Value</b>        | <b>Description</b> | 0             | HLTInactive  | HLT Inactive                            | 1 | HLTActive     | HLT Active                                |   |               |                                            |   |               |                                            |
| <b>Enumeration</b>                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Binary</b>                        | <b>Value</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 0                                    | HLTInactive   | HLT Inactive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 1                                    | HLTActive     | HLT Active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| INCNUMTEAM                           | UINT16        | FEEDERNET incoming team array number of teams<br><table><tr><td colspan="2"><b>Numeric Type, Range: 0-65535</b></td></tr><tr><td><b>Action</b></td><td><b>Value</b></td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                   | <b>Numeric Type, Range: 0-65535</b>  |   | <b>Action</b> | <b>Value</b>  | Multiplier          | 1                  | Adder         | 0            |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Numeric Type, Range: 0-65535</b>  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Action</b>                        | <b>Value</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Multiplier                           | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Adder                                | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| IndexMngTable                        | UINT16        | Find this node in the NLTA arrays<br><table><tr><td colspan="2"><b>Numeric Type, Range: 0-65535</b></td></tr><tr><td><b>Action</b></td><td><b>Value</b></td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                               | <b>Numeric Type, Range: 0-65535</b>  |   | <b>Action</b> | <b>Value</b>  | Multiplier          | 1                  | Adder         | 0            |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Numeric Type, Range: 0-65535</b>  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Action</b>                        | <b>Value</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Multiplier                           | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Adder                                | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Instance                             | UINT16        | Instance: The value is used for debugging purposes and does not yield any benefit<br><table><tr><td colspan="2"><b>Numeric Type, Range: 0-65535</b></td></tr><tr><td><b>Action</b></td><td><b>Value</b></td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                               | <b>Numeric Type, Range: 0-65535</b>  |   | <b>Action</b> | <b>Value</b>  | Multiplier          | 1                  | Adder         | 0            |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Numeric Type, Range: 0-65535</b>  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Action</b>                        | <b>Value</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Multiplier                           | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Adder                                | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| InternalCode                         | UINT16        | Internal code for troubleshooting.<br><table><tr><td colspan="3"><b>Enumeration</b></td></tr><tr><td><b>Binary</b></td><td><b>Value</b></td><td><b>Description</b></td></tr><tr><td>1</td><td>CCircRsrcOK</td><td>Contract circuit resources are adequate</td></tr><tr><td>2</td><td>CLineSegReqHi</td><td>Contract line segment request above limit</td></tr><tr><td>3</td><td>CLoadCapReqHi</td><td>Contract load capacity request above limit</td></tr><tr><td>4</td><td>SrcSubSwVloss</td><td>SourceSub Switch has detected voltage loss</td></tr></table> | <b>Enumeration</b>                   |   |               | <b>Binary</b> | <b>Value</b>        | <b>Description</b> | 1             | CCircRsrcOK  | Contract circuit resources are adequate | 2 | CLineSegReqHi | Contract line segment request above limit | 3 | CLoadCapReqHi | Contract load capacity request above limit | 4 | SrcSubSwVloss | SourceSub Switch has detected voltage loss |
| <b>Enumeration</b>                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Binary</b>                        | <b>Value</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 1                                    | CCircRsrcOK   | Contract circuit resources are adequate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 2                                    | CLineSegReqHi | Contract line segment request above limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 3                                    | CLoadCapReqHi | Contract load capacity request above limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 4                                    | SrcSubSwVloss | SourceSub Switch has detected voltage loss                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| LineSegLimit                         | UINT16        | <table><tr><td colspan="3"><b>Enumeration</b></td></tr><tr><td><b>Binary</b></td><td><b>Value</b></td><td><b>Description</b></td></tr><tr><td>0</td><td>LineSegLimit</td><td>Line Seg Limit</td></tr></table>                                                                                                                                                                                                                                                                                                                                                  | <b>Enumeration</b>                   |   |               | <b>Binary</b> | <b>Value</b>        | <b>Description</b> | 0             | LineSegLimit | Line Seg Limit                          |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Enumeration</b>                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Binary</b>                        | <b>Value</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| 0                                    | LineSegLimit  | Line Seg Limit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| LoadingCurrent                       | UINT16        | 1 amperes per count<br><table><tr><td colspan="2"><b>Numeric Type, Range: 0-655350</b></td></tr><tr><td><b>Action</b></td><td><b>Value</b></td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                            | <b>Numeric Type, Range: 0-655350</b> |   | <b>Action</b> | <b>Value</b>  | Multiplier          | 1                  | Adder         | 0            |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Numeric Type, Range: 0-655350</b> |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Action</b>                        | <b>Value</b>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Multiplier                           | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| Adder                                | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| LOGDiagType                          | UINT16        | <table><tr><td colspan="3"><b>Enumeration</b></td></tr><tr><td><b>Binary</b></td><td><b>Value</b></td><td><b>Description</b></td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Enumeration</b>                   |   |               | <b>Binary</b> | <b>Value</b>        | <b>Description</b> |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Enumeration</b>                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |
| <b>Binary</b>                        | <b>Value</b>  | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |   |               |               |                     |                    |               |              |                                         |   |               |                                           |   |               |                                            |   |               |                                            |

## Definitions of Historic Events

|                      |                | <table> <tr><td>1</td><td>Alarm</td><td>Alarm</td></tr> <tr><td>2</td><td>Warning</td><td>Warning</td></tr> <tr><td>4</td><td>Error</td><td>Error</td></tr> </table>                                                                                                                                                                                                                                                                                                                                         | 1           | Alarm | Alarm | 2      | Warning | Warning     | 4 | Error         | Error           |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
|----------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------|-------|--------|---------|-------------|---|---------------|-----------------|---|---------------|---------------|---|-------------|-----------------|---|----------|-----------|---|--------------|---------------|---|----------------|----------------------|-----|----------|-----------|
| 1                    | Alarm          | Alarm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 2                    | Warning        | Warning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 4                    | Error          | Error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| ManualOp             | UINT16         | <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>ManOpInactive</td><td>Man Op Inactive</td></tr> <tr><td>1</td><td>ManOpActive</td><td>Man Op Active</td></tr> </table>                                                                                                                                                                                                                                                        | Enumeration |       |       | Binary | Value   | Description | 0 | ManOpInactive | Man Op Inactive | 1 | ManOpActive   | Man Op Active |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 0                    | ManOpInactive  | Man Op Inactive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | ManOpActive    | Man Op Active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| MapNumber            | UINT16         | <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>BinaryInput</td><td>binary input</td></tr> <tr><td>1</td><td>AnalogInput</td><td>analog input</td></tr> <tr><td>2</td><td>Counter</td><td>counter</td></tr> <tr><td>3</td><td>Control</td><td>control</td></tr> <tr><td>4</td><td>AnalogOutput</td><td>analog output</td></tr> <tr><td>5</td><td>DblBinaryInput</td><td>double binary output</td></tr> </table>               | Enumeration |       |       | Binary | Value   | Description | 0 | BinaryInput   | binary input    | 1 | AnalogInput   | analog input  | 2 | Counter     | counter         | 3 | Control  | control   | 4 | AnalogOutput | analog output | 5 | DblBinaryInput | double binary output |     |          |           |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 0                    | BinaryInput    | binary input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | AnalogInput    | analog input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 2                    | Counter        | counter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 3                    | Control        | control                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 4                    | AnalogOutput   | analog output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 5                    | DblBinaryInput | double binary output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Master               | UINT16         | <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>1</td><td>Master1</td><td>Master 1</td></tr> <tr><td>2</td><td>Master2</td><td>Master 2</td></tr> <tr><td>3</td><td>Master3</td><td>Master 3</td></tr> <tr><td>4</td><td>Master4</td><td>Master 4</td></tr> <tr><td>5</td><td>Master5</td><td>Master 5</td></tr> <tr><td>6</td><td>Master6</td><td>Master 6</td></tr> <tr><td>255</td><td>NoMaster</td><td>No Master</td></tr> </table> | Enumeration |       |       | Binary | Value   | Description | 1 | Master1       | Master 1        | 2 | Master2       | Master 2      | 3 | Master3     | Master 3        | 4 | Master4  | Master 4  | 5 | Master5      | Master 5      | 6 | Master6        | Master 6             | 255 | NoMaster | No Master |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | Master1        | Master 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 2                    | Master2        | Master 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 3                    | Master3        | Master 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 4                    | Master4        | Master 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 5                    | Master5        | Master 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 6                    | Master6        | Master 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 255                  | NoMaster       | No Master                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| MasterRecAddError    | UINT16         | <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>Good</td><td>good</td></tr> <tr><td>1</td><td>Error</td><td>error</td></tr> <tr><td>2</td><td>AlrdyInList</td><td>already in list</td></tr> <tr><td>3</td><td>ListFull</td><td>list full</td></tr> <tr><td>4</td><td>NotOnList</td><td>not on list</td></tr> </table>                                                                                                         | Enumeration |       |       | Binary | Value   | Description | 0 | Good          | good            | 1 | Error         | error         | 2 | AlrdyInList | already in list | 3 | ListFull | list full | 4 | NotOnList    | not on list   |   |                |                      |     |          |           |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 0                    | Good           | good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | Error          | error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 2                    | AlrdyInList    | already in list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 3                    | ListFull       | list full                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 4                    | NotOnList      | not on list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| MaxPeersWhen         | UINT16         | <p>Max Peers Occur During This</p> <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>WhenTestInit</td><td>WhenTestInit</td></tr> <tr><td>1</td><td>WhenTestStats</td><td>WhenTestStats</td></tr> </table>                                                                                                                                                                                                                       | Enumeration |       |       | Binary | Value   | Description | 0 | WhenTestInit  | WhenTestInit    | 1 | WhenTestStats | WhenTestStats |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 0                    | WhenTestInit   | WhenTestInit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | WhenTestStats  | WhenTestStats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| MemberWithDoneAndEOL | UINT16         | <table> <tr><th colspan="3">Enumeration</th></tr> <tr><th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>1</td><td>Member1</td><td>Member 1</td></tr> <tr><td>2</td><td>Member2</td><td>Member 2</td></tr> <tr><td>3</td><td>Member3</td><td>Member 3</td></tr> <tr><td>4</td><td>Member4</td><td>Member 4</td></tr> </table>                                                                                                                                                                    | Enumeration |       |       | Binary | Value   | Description | 1 | Member1       | Member 1        | 2 | Member2       | Member 2      | 3 | Member3     | Member 3        | 4 | Member4  | Member 4  |   |              |               |   |                |                      |     |          |           |
| Enumeration          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| Binary               | Value          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 1                    | Member1        | Member 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 2                    | Member2        | Member 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 3                    | Member3        | Member 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |
| 4                    | Member4        | Member 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |       |       |        |         |             |   |               |                 |   |               |               |   |             |                 |   |          |           |   |              |               |   |                |                      |     |          |           |

|                              |                 | <table><tr><td>5</td><td>Member5</td><td>Member 5</td></tr><tr><td>6</td><td>Member6</td><td>Member 6</td></tr><tr><td>7</td><td>Member7</td><td>Member 7</td></tr><tr><td>8</td><td>Member8</td><td>Member 8</td></tr><tr><td>254</td><td>EndofList</td><td>EndofList</td></tr><tr><td>256</td><td>Done</td><td>Done</td></tr></table>                   | 5                            | Member5 | Member 5 | 6      | Member6    | Member 6    | 7     | Member7         | Member 7              | 8 | Member8        | Member 8                                        | 254 | EndofList | EndofList           | 256 | Done | Done |
|------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------|----------|--------|------------|-------------|-------|-----------------|-----------------------|---|----------------|-------------------------------------------------|-----|-----------|---------------------|-----|------|------|
| 5                            | Member5         | Member 5                                                                                                                                                                                                                                                                                                                                                  |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 6                            | Member6         | Member 6                                                                                                                                                                                                                                                                                                                                                  |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 7                            | Member7         | Member 7                                                                                                                                                                                                                                                                                                                                                  |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 8                            | Member8         | Member 8                                                                                                                                                                                                                                                                                                                                                  |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 254                          | EndofList       | EndofList                                                                                                                                                                                                                                                                                                                                                 |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 256                          | Done            | Done                                                                                                                                                                                                                                                                                                                                                      |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| MoreThanOneDiffFound         | UINT16          | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>OneDiffFound</td><td>Only OneDiff Found</td></tr><tr><td>1</td><td>TwoOrMoreDiffs</td><td>Two Or More Diffs</td></tr></table>                                                                                                 | Enumeration                  |         |          | Binary | Value      | Description | 0     | OneDiffFound    | Only OneDiff Found    | 1 | TwoOrMoreDiffs | Two Or More Diffs                               |     |           |                     |     |      |      |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                               |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 0                            | OneDiffFound    | Only OneDiff Found                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 1                            | TwoOrMoreDiffs  | Two Or More Diffs                                                                                                                                                                                                                                                                                                                                         |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| netfragID                    | UINT16          | Net Fragment ID<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                 | Numeric Type, Range: 0-65535 |         | Action   | Value  | Multiplier | 1           | Adder | 0               |                       |   |                |                                                 |     |           |                     |     |      |      |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| NETLISTRNR                   | UINT16          | Number of NETLIST runners in RunnerSource<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                       | Numeric Type, Range: 0-65535 |         | Action   | Value  | Multiplier | 1           | Adder | 0               |                       |   |                |                                                 |     |           |                     |     |      |      |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| netobuffFree                 | UINT16          | Cumulative free buffer space<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                    | Numeric Type, Range: 0-65535 |         | Action   | Value  | Multiplier | 1           | Adder | 0               |                       |   |                |                                                 |     |           |                     |     |      |      |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| NETSTE                       | UINT16          | Net state E<br><table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>BACKIDLE</td><td>Go back to idle</td></tr><tr><td>8</td><td>RESENDNRNR</td><td>Go re-send the runner objects since some failed</td></tr><tr><td>4</td><td>WAITRT</td><td>Go wait for returns</td></tr></table> | Enumeration                  |         |          | Binary | Value      | Description | 1     | BACKIDLE        | Go back to idle       | 8 | RESENDNRNR     | Go re-send the runner objects since some failed | 4   | WAITRT    | Go wait for returns |     |      |      |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                               |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 1                            | BACKIDLE        | Go back to idle                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 8                            | RESENDNRNR      | Go re-send the runner objects since some failed                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 4                            | WAITRT          | Go wait for returns                                                                                                                                                                                                                                                                                                                                       |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| NetViewAnalyzer              | UINT16          | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NETVIEWNOTVALID</td><td>Net view is not valid</td></tr><tr><td>2</td><td>NETVIEWVALID</td><td>Net view is valid</td></tr></table>                                                                                             | Enumeration                  |         |          | Binary | Value      | Description | 0     | NETVIEWNOTVALID | Net view is not valid | 2 | NETVIEWVALID   | Net view is valid                               |     |           |                     |     |      |      |
| Enumeration                  |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Binary                       | Value           | Description                                                                                                                                                                                                                                                                                                                                               |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 0                            | NETVIEWNOTVALID | Net view is not valid                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| 2                            | NETVIEWVALID    | Net view is valid                                                                                                                                                                                                                                                                                                                                         |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| NETViewLength                | UINT16          | The Normal State NetView Length of each row table<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                               | Numeric Type, Range: 0-65535 |         | Action   | Value  | Multiplier | 1           | Adder | 0               |                       |   |                |                                                 |     |           |                     |     |      |      |
| Numeric Type, Range: 0-65535 |                 |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Action                       | Value           |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Multiplier                   | 1               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |
| Adder                        | 0               |                                                                                                                                                                                                                                                                                                                                                           |                              |         |          |        |            |             |       |                 |                       |   |                |                                                 |     |           |                     |     |      |      |

## Definitions of Historic Events

|                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
|------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|--------|------------|-------------|-------|----------------|-----------------------|---|-------------------|--------------------------|---|-------------------|---------------------------|-----|-------------------|--------------------------|
| NetViewRowNum                | UINT16            | Runner source row number in nnet<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                              | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0              |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Action                       | Value             |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Multiplier                   | 1                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Adder                        | 0                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| NETVSRC                      | UINT16            | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>NETVSRC_NORMAL</td><td>NETV source is normal</td></tr><tr><td>2</td><td>NETVSRC_ALTERNATE</td><td>NETV source is alternate</td></tr><tr><td>3</td><td>NETVFDR_NOTNORMAL</td><td>NETV source is not normal</td></tr><tr><td>255</td><td>NETVSRC_UNDEFINED</td><td>NETV source is undefined</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 1     | NETVSRC_NORMAL | NETV source is normal | 2 | NETVSRC_ALTERNATE | NETV source is alternate | 3 | NETVFDR_NOTNORMAL | NETV source is not normal | 255 | NETVSRC_UNDEFINED | NETV source is undefined |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 1                            | NETVSRC_NORMAL    | NETV source is normal                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 2                            | NETVSRC_ALTERNATE | NETV source is alternate                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 3                            | NETVFDR_NOTNORMAL | NETV source is not normal                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 255                          | NETVSRC_UNDEFINED | NETV source is undefined                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| NodeCount                    | UINT16            | Number of appearnaces in this runner<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                          | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0              |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Action                       | Value             |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Multiplier                   | 1                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Adder                        | 0                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| NodeIndex                    | UINT16            | Our position in the Node Index table<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                          | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0              |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Action                       | Value             |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Multiplier                   | 1                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Adder                        | 0                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Nodelists                    | UINT16            | Runner node lists<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                             | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0              |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Action                       | Value             |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Multiplier                   | 1                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Adder                        | 0                 |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| NoMaster                     | UINT16            | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>MasterExists</td><td>MasterExists</td></tr><tr><td>1</td><td>NoMaster</td><td>No Master</td></tr></table>                                                                                                                                                                                                   | Enumeration                  |  |        | Binary | Value      | Description | 0     | MasterExists   | MasterExists          | 1 | NoMaster          | No Master                |   |                   |                           |     |                   |                          |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 0                            | MasterExists      | MasterExists                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 1                            | NoMaster          | No Master                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| NoPeersWhen                  | UINT16            | Max Peers Occur During This<br><table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>SchedTest</td><td>SchedTest</td></tr><tr><td>1</td><td>QuickTest</td><td>QuickTest</td></tr><tr><td>2</td><td>KeepAlive</td><td>KeepAlive</td></tr><tr><td>3</td><td>KwikKeepAlive</td><td>KwikKeepAlive</td></tr></table>                                                   | Enumeration                  |  |        | Binary | Value      | Description | 0     | SchedTest      | SchedTest             | 1 | QuickTest         | QuickTest                | 2 | KeepAlive         | KeepAlive                 | 3   | KwikKeepAlive     | KwikKeepAlive            |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 0                            | SchedTest         | SchedTest                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 1                            | QuickTest         | QuickTest                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 2                            | KeepAlive         | KeepAlive                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| 3                            | KwikKeepAlive     | KwikKeepAlive                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| nsngl                        | UINT16            | number of device connections present, counter, list len<br><table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td colspan="2"></td></tr></table>                                                                                                                                                                                                                                                                      | Numeric Type, Range: 0-65535 |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |
|                              |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                |                       |   |                   |                          |   |                   |                           |     |                   |                          |

|                              |        | <table><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                | Action                       | Value | Multiplier | 1     | Adder      | 0 |       |   |
|------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|------------|-------|------------|---|-------|---|
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| nt                           | UINT16 | Number of team records<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                            | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumDataElements              | UINT16 | Actual number of data elements in DLV<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>             | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumDevicesinFN               | UINT16 | Number of devices in the Feeder Net<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>               | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumNodeID                    | UINT16 | Number of Node IDs in the list<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                    | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumNodeIndex                 | UINT16 | Number of indexes in the Node table<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>               | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumOfDevices                 | UINT16 | Netview number of devices/switches in DivisionNet<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table> | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumOfPowSrc                  | UINT16 | Number of power sources in DivisionNet<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>            | Numeric Type, Range: 0-65535 |       | Action     | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                             |                              |       |            |       |            |   |       |   |
| NumOfRows                    | UINT16 | Net Present NetView number of rows in table for DivisionNet                                                                                                                                                                                 |                              |       |            |       |            |   |       |   |

## Definitions of Historic Events

|                              |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
|------------------------------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|-------|------------|---|-------|---|
|                              |        | <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                              | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| NumOfTeams                   | UINT16 | <div>Number of teams</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                   | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| NumOfWirePairs               | UINT16 | <div>Number of entries in the D-W (Device-Wire) tables</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table> | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| NumPaths                     | UINT16 | <div>Number of paths in this particular Feeder Net</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>     | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| NumPayLoad                   | UINT16 | <div>Quantity of associated payload elements</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>           | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| NumRunners                   | UINT16 | <div>Number of runners</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                 | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| ObjectLength                 | UINT16 | <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                              | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| ObjID                        | UINT16 | <div>Object ID</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                         | Numeric Type, Range: 0-65535 |  | Action | Value | Multiplier | 1 | Adder | 0 |
| Numeric Type, Range: 0-65535 |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Action                       | Value  |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Multiplier                   | 1      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| Adder                        | 0      |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |
| ObjState                     | UINT16 | <table><tr><td colspan="2">Enumeration</td></tr></table>                                                                                                                                                                                            | Enumeration                  |  |        |       |            |   |       |   |
| Enumeration                  |        |                                                                                                                                                                                                                                                     |                              |  |        |       |            |   |       |   |

|                            |                    | <table><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NETOBJSTATENONE</td><td>No net object state</td></tr><tr><td>1</td><td>NETOBJSTATEREADY</td><td>Net object state is ready</td></tr><tr><td>2</td><td>NETOBJSEBUFFERED</td><td>Net object state is buffered</td></tr><tr><td>3</td><td>NETOBJSTATEACKEXEC</td><td>Net object state positive ack</td></tr><tr><td>4</td><td>NETOBJNACKEXEC</td><td>Net object state negative ack</td></tr><tr><td>5</td><td>NETOBJSTATEHOLD</td><td>Net object state is on hold</td></tr><tr><td>6</td><td>NETOBJSTATESEND</td><td>Net object state sent</td></tr><tr><td>7</td><td>NETOBJSENDWAIT</td><td>Net object state is waiting to be sent</td></tr><tr><td>8</td><td>NETOBJSENDCONTINUE</td><td>Net object state is contiued to be sent</td></tr><tr><td>9</td><td>NETOBJSTATEREMOVE</td><td>Net object state is removed</td></tr><tr><td>10</td><td>NETOBJRECEIVED</td><td>Net object state is recieved</td></tr><tr><td>11</td><td>NETOBJSENDDELAY</td><td>Net object state is delayed</td></tr></table> | Binary                     | Value | Description | 0      | NETOBJSTATENONE | No net object state | 1     | NETOBJSTATEREADY | Net object state is ready | 2             | NETOBJSEBUFFERED | Net object state is buffered | 3 | NETOBJSTATEACKEXEC | Net object state positive ack | 4 | NETOBJNACKEXEC | Net object state negative ack | 5 | NETOBJSTATEHOLD | Net object state is on hold | 6 | NETOBJSTATESEND | Net object state sent | 7 | NETOBJSENDWAIT | Net object state is waiting to be sent | 8 | NETOBJSENDCONTINUE | Net object state is contiued to be sent | 9 | NETOBJSTATEREMOVE | Net object state is removed | 10 | NETOBJRECEIVED | Net object state is recieved | 11 | NETOBJSENDDELAY | Net object state is delayed |
|----------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------|-------------|--------|-----------------|---------------------|-------|------------------|---------------------------|---------------|------------------|------------------------------|---|--------------------|-------------------------------|---|----------------|-------------------------------|---|-----------------|-----------------------------|---|-----------------|-----------------------|---|----------------|----------------------------------------|---|--------------------|-----------------------------------------|---|-------------------|-----------------------------|----|----------------|------------------------------|----|-----------------|-----------------------------|
| Binary                     | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 0                          | NETOBJSTATENONE    | No net object state                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 1                          | NETOBJSTATEREADY   | Net object state is ready                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 2                          | NETOBJSEBUFFERED   | Net object state is buffered                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 3                          | NETOBJSTATEACKEXEC | Net object state positive ack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 4                          | NETOBJNACKEXEC     | Net object state negative ack                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 5                          | NETOBJSTATEHOLD    | Net object state is on hold                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 6                          | NETOBJSTATESEND    | Net object state sent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 7                          | NETOBJSENDWAIT     | Net object state is waiting to be sent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 8                          | NETOBJSENDCONTINUE | Net object state is contiued to be sent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 9                          | NETOBJSTATEREMOVE  | Net object state is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 10                         | NETOBJRECEIVED     | Net object state is recieved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 11                         | NETOBJSENDDELAY    | Net object state is delayed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| OneHexByte                 | UINT16             | <p>Values represented in hexadecimal code</p> <table><tr><th colspan="2">Numeric Type, Range: 0-255</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table> <table><tr><th>Presentation</th></tr><tr><td>Binary {0:X2}</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Numeric Type, Range: 0-255 |       | Action      | Value  | Multiplier      | 1                   | Adder | 0                | Presentation              | Binary {0:X2} |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Numeric Type, Range: 0-255 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Action                     | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Multiplier                 | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Adder                      | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Presentation               |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Binary {0:X2}              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Phase                      | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>OnePhase</td><td>OnePhase</td></tr><tr><td>3</td><td>ThreePhase</td><td>ThreePhase</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Enumeration                |       |             | Binary | Value           | Description         | 1     | OnePhase         | OnePhase                  | 3             | ThreePhase       | ThreePhase                   |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Enumeration                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Binary                     | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 1                          | OnePhase           | OnePhase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 3                          | ThreePhase         | ThreePhase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Point                      | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>PtToOpIR</td><td>Point to operate IR</td></tr><tr><td>2</td><td>PtToBlkRecl</td><td>Point to block reclosing</td></tr><tr><td>3</td><td>PtToBlkGTrip</td><td>Point to block ground trip</td></tr><tr><td>4</td><td>PtToChgProf</td><td>Point to change profile</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Enumeration                |       |             | Binary | Value           | Description         | 1     | PtToOpIR         | Point to operate IR       | 2             | PtToBlkRecl      | Point to block reclosing     | 3 | PtToBlkGTrip       | Point to block ground trip    | 4 | PtToChgProf    | Point to change profile       |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Enumeration                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Binary                     | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 1                          | PtToOpIR           | Point to operate IR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 2                          | PtToBlkRecl        | Point to block reclosing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 3                          | PtToBlkGTrip       | Point to block ground trip                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 4                          | PtToChgProf        | Point to change profile                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| PortCode                   | UINT16             | <p>Communication port code.</p> <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>UDP</td><td>UDP</td></tr><tr><td>1</td><td>PortA</td><td>portA</td></tr><tr><td>2</td><td>PortB</td><td>portB</td></tr><tr><td>3</td><td>PortC</td><td>portC</td></tr><tr><td>4</td><td>PortD</td><td>portD</td></tr><tr><td>6</td><td>TCPV6</td><td>TCP Virtual Port 6</td></tr><tr><td>7</td><td>TCPV7</td><td>TCP Virtual Port 7</td></tr><tr><td>8</td><td>TCPV8</td><td>TCP Virtual Port 8</td></tr><tr><td>9</td><td>TCPV9</td><td>TCP Virtual Port 9</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                           | Enumeration                |       |             | Binary | Value           | Description         | 0     | UDP              | UDP                       | 1             | PortA            | portA                        | 2 | PortB              | portB                         | 3 | PortC          | portC                         | 4 | PortD           | portD                       | 6 | TCPV6           | TCP Virtual Port 6    | 7 | TCPV7          | TCP Virtual Port 7                     | 8 | TCPV8              | TCP Virtual Port 8                      | 9 | TCPV9             | TCP Virtual Port 9          |    |                |                              |    |                 |                             |
| Enumeration                |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| Binary                     | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 0                          | UDP                | UDP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 1                          | PortA              | portA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 2                          | PortB              | portB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 3                          | PortC              | portC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 4                          | PortD              | portD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 6                          | TCPV6              | TCP Virtual Port 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 7                          | TCPV7              | TCP Virtual Port 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 8                          | TCPV8              | TCP Virtual Port 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |
| 9                          | TCPV9              | TCP Virtual Port 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |       |             |        |                 |                     |       |                  |                           |               |                  |                              |   |                    |                               |   |                |                               |   |                 |                             |   |                 |                       |   |                |                                        |   |                    |                                         |   |                   |                             |    |                |                              |    |                 |                             |

## Definitions of Historic Events

|                    |                 | <table> <tr><td>10</td><td>TCPV10</td><td>TCP Virtual Port 10</td></tr> <tr><td>11</td><td>TCPV11</td><td>TCP Virtual Port 11</td></tr> <tr><td>12</td><td>TCPV12</td><td>TCP Virtual Port 12</td></tr> <tr><td>13</td><td>TCPV13</td><td>TCP Virtual Port 13</td></tr> <tr><td>14</td><td>TCPV14</td><td>TCP Virtual Port 14</td></tr> <tr><td>15</td><td>TCPV15</td><td>TCP Virtual Port 15</td></tr> <tr><td>16</td><td>TCPV16</td><td>TCP Virtual Port 16</td></tr> <tr><td>17</td><td>TCPV17</td><td>TCP Virtual Port 17</td></tr> <tr><td>18</td><td>TCPV18</td><td>TCP Virtual Port 18</td></tr> <tr><td>19</td><td>TCPV19</td><td>TCP Virtual Port 19</td></tr> <tr><td>20</td><td>TCPV20</td><td>TCP Virtual Port 20</td></tr> <tr><td>21</td><td>TCPV21</td><td>TCP Virtual Port 21</td></tr> <tr><td>22</td><td>TCPV22</td><td>TCP Virtual Port 22</td></tr> <tr><td>23</td><td>TCPV23</td><td>TCP Virtual Port 23</td></tr> <tr><td>24</td><td>TCPV24</td><td>TCP Virtual Port 24</td></tr> <tr><td>25</td><td>TCPV25</td><td>TCP Virtual Port 25</td></tr> <tr><td>26</td><td>TCPV26</td><td>TCP Virtual Port 26</td></tr> <tr><td>27</td><td>TCPV27</td><td>TCP Virtual Port 27</td></tr> <tr><td>28</td><td>TCPV28</td><td>TCP Virtual Port 28</td></tr> <tr><td>29</td><td>TCPV29</td><td>TCP Virtual Port 29</td></tr> <tr><td>30</td><td>TCPV30</td><td>TCP Virtual Port 30</td></tr> <tr><td>31</td><td>TCPV31</td><td>TCP Virtual Port 31</td></tr> <tr><td>32</td><td>TCPV32</td><td>TCP Virtual Port 32</td></tr> <tr><td>33</td><td>TCPV33</td><td>TCP Virtual Port 33</td></tr> <tr><td>34</td><td>TCPV34</td><td>TCP Virtual Port 34</td></tr> <tr><td>35</td><td>TCPV35</td><td>TCP Virtual Port 35</td></tr> <tr><td>36</td><td>TCPV36</td><td>TCP Virtual Port 36</td></tr> <tr><td>37</td><td>TCPV37</td><td>TCP Virtual Port 37</td></tr> <tr><td>38</td><td>TCPV38</td><td>TCP Virtual Port 38</td></tr> <tr><td>255</td><td>Undefined</td><td>Undefined</td></tr> <tr><td>20000</td><td>P20000</td><td>20000</td></tr> <tr><td>20001</td><td>P20001</td><td>20001</td></tr> </table> | 10          | TCPV10 | TCP Virtual Port 10 | 11     | TCPV11 | TCP Virtual Port 11 | 12 | TCPV12         | TCP Virtual Port 12 | 13 | TCPV13     | TCP Virtual Port 13 | 14 | TCPV14          | TCP Virtual Port 14 | 15 | TCPV15       | TCP Virtual Port 15 | 16 | TCPV16   | TCP Virtual Port 16 | 17 | TCPV17        | TCP Virtual Port 17 | 18 | TCPV18      | TCP Virtual Port 18 | 19 | TCPV19 | TCP Virtual Port 19 | 20 | TCPV20 | TCP Virtual Port 20 | 21 | TCPV21 | TCP Virtual Port 21 | 22 | TCPV22 | TCP Virtual Port 22 | 23 | TCPV23 | TCP Virtual Port 23 | 24 | TCPV24 | TCP Virtual Port 24 | 25 | TCPV25 | TCP Virtual Port 25 | 26 | TCPV26 | TCP Virtual Port 26 | 27 | TCPV27 | TCP Virtual Port 27 | 28 | TCPV28 | TCP Virtual Port 28 | 29 | TCPV29 | TCP Virtual Port 29 | 30 | TCPV30 | TCP Virtual Port 30 | 31 | TCPV31 | TCP Virtual Port 31 | 32 | TCPV32 | TCP Virtual Port 32 | 33 | TCPV33 | TCP Virtual Port 33 | 34 | TCPV34 | TCP Virtual Port 34 | 35 | TCPV35 | TCP Virtual Port 35 | 36 | TCPV36 | TCP Virtual Port 36 | 37 | TCPV37 | TCP Virtual Port 37 | 38 | TCPV38 | TCP Virtual Port 38 | 255 | Undefined | Undefined | 20000 | P20000 | 20000 | 20001 | P20001 | 20001 |
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| 10                 | TCPV10          | TCP Virtual Port 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 11                 | TCPV11          | TCP Virtual Port 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 12                 | TCPV12          | TCP Virtual Port 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 13                 | TCPV13          | TCP Virtual Port 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 14                 | TCPV14          | TCP Virtual Port 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 15                 | TCPV15          | TCP Virtual Port 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 16                 | TCPV16          | TCP Virtual Port 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 17                 | TCPV17          | TCP Virtual Port 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 18                 | TCPV18          | TCP Virtual Port 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 19                 | TCPV19          | TCP Virtual Port 19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 20                 | TCPV20          | TCP Virtual Port 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 21                 | TCPV21          | TCP Virtual Port 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 22                 | TCPV22          | TCP Virtual Port 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 23                 | TCPV23          | TCP Virtual Port 23                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 24                 | TCPV24          | TCP Virtual Port 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 25                 | TCPV25          | TCP Virtual Port 25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 26                 | TCPV26          | TCP Virtual Port 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 27                 | TCPV27          | TCP Virtual Port 27                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 28                 | TCPV28          | TCP Virtual Port 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 29                 | TCPV29          | TCP Virtual Port 29                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 30                 | TCPV30          | TCP Virtual Port 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 31                 | TCPV31          | TCP Virtual Port 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 32                 | TCPV32          | TCP Virtual Port 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 33                 | TCPV33          | TCP Virtual Port 33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 34                 | TCPV34          | TCP Virtual Port 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 35                 | TCPV35          | TCP Virtual Port 35                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 36                 | TCPV36          | TCP Virtual Port 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 37                 | TCPV37          | TCP Virtual Port 37                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 38                 | TCPV38          | TCP Virtual Port 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 255                | Undefined       | Undefined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 20000              | P20000          | 20000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 20001              | P20001          | 20001                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| PRReason           | UINT16          | <table> <tr><th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>1</td><td>UnderFrequency</td><td>Under Frequency</td></tr> <tr><td>2</td><td>HotLineTag</td><td>Hot Line Tag</td></tr> <tr><td>3</td><td>ManualOperation</td><td>Manual Operation</td></tr> <tr><td>4</td><td>LocalCommand</td><td>Local Command</td></tr> <tr><td>5</td><td>AuxInput</td><td>Aux Input</td></tr> <tr><td>6</td><td>StateMismatch</td><td>State Mismatch</td></tr> <tr><td>7</td><td>SCADAMaster</td><td>SCADA Master</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Enumeration |        |                     | Binary | Value  | Description         | 1  | UnderFrequency | Under Frequency     | 2  | HotLineTag | Hot Line Tag        | 3  | ManualOperation | Manual Operation    | 4  | LocalCommand | Local Command       | 5  | AuxInput | Aux Input           | 6  | StateMismatch | State Mismatch      | 7  | SCADAMaster | SCADA Master        |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| Enumeration        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| Binary             | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 1                  | UnderFrequency  | Under Frequency                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 2                  | HotLineTag      | Hot Line Tag                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 3                  | ManualOperation | Manual Operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 4                  | LocalCommand    | Local Command                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 5                  | AuxInput        | Aux Input                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 6                  | StateMismatch   | State Mismatch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 7                  | SCADAMaster     | SCADA Master                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| RegistrationStatus | UINT16          | <table> <tr><th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>DNPRETURNGOOD</td><td>DNP return is good</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Enumeration |        |                     | Binary | Value  | Description         | 0  | DNPRETURNGOOD  | DNP return is good  |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| Enumeration        |                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| Binary             | Value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |
| 0                  | DNPRETURNGOOD   | DNP return is good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |        |                     |        |        |                     |    |                |                     |    |            |                     |    |                 |                     |    |              |                     |    |          |                     |    |               |                     |    |             |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |    |        |                     |     |           |           |       |        |       |       |        |       |

|                              |                   | <table><tr><td>1</td><td>DNPRETURNERROR</td><td>DNP return error</td></tr><tr><td>2</td><td>DNPRTNERRONLIST</td><td>DNP return error already on the list</td></tr><tr><td>3</td><td>DNPRTNERRLISTFULL</td><td>DNP return error is full</td></tr><tr><td>4</td><td>DNPRTNOTONLIST</td><td>DNP return error not on list</td></tr><tr><td>5</td><td>DNPRTNERRNOTP2P</td><td>DNP return error not P2P</td></tr><tr><td>6</td><td>DNPRTNDELAY</td><td>DNP return delayed before retry</td></tr><tr><td>7</td><td>DNPRTNACTIVEPOINT</td><td>DNP return active on point</td></tr><tr><td>8</td><td>DNPRETURNCOMPLETE</td><td>DNP return is complete</td></tr><tr><td>9</td><td>DNPRTNINPROGRESS</td><td>DNP return in progress</td></tr><tr><td>10</td><td>DNPRRNNOTAMASTER</td><td>DNP return not a master</td></tr></table>                                                                                                                                                        | 1                            | DNPRETURNERROR | DNP return error | 2      | DNPRTNERRONLIST | DNP return error already on the list | 3     | DNPRTNERRLISTFULL | DNP return error is full                       | 4 | DNPRTNOTONLIST   | DNP return error not on list                               | 5 | DNPRTNERRNOTP2P | DNP return error not P2P | 6 | DNPRTNDELAY | DNP return delayed before retry | 7 | DNPRTNACTIVEPOINT | DNP return active on point | 8 | DNPRETURNCOMPLETE | DNP return is complete | 9 | DNPRTNINPROGRESS | DNP return in progress | 10 | DNPRRNNOTAMASTER | DNP return not a master |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
|------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------|------------------|--------|-----------------|--------------------------------------|-------|-------------------|------------------------------------------------|---|------------------|------------------------------------------------------------|---|-----------------|--------------------------|---|-------------|---------------------------------|---|-------------------|----------------------------|---|-------------------|------------------------|---|------------------|------------------------|----|------------------|-------------------------|---|-----------|------------|---|------------|--------------------|----|----------|-----------|----|-------------|-------------------|-----|--------------|-------------|-----|----------|---------------|
| 1                            | DNPRETURNERROR    | DNP return error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 2                            | DNPRTNERRONLIST   | DNP return error already on the list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 3                            | DNPRTNERRLISTFULL | DNP return error is full                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 4                            | DNPRTNOTONLIST    | DNP return error not on list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 5                            | DNPRTNERRNOTP2P   | DNP return error not P2P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 6                            | DNPRTNDELAY       | DNP return delayed before retry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 7                            | DNPRTNACTIVEPOINT | DNP return active on point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 8                            | DNPRETURNCOMPLETE | DNP return is complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 9                            | DNPRTNINPROGRESS  | DNP return in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 10                           | DNPRRNNOTAMASTER  | DNP return not a master                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| RestoreConditionTestResult   | UINT16            | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NoResult</td><td>NO RESULT</td></tr><tr><td>1</td><td>CloseSwOK</td><td>CLOSE SW OK</td></tr><tr><td>2</td><td>Isolated</td><td>ISOLATED</td></tr><tr><td>3</td><td>ExcessLoad</td><td>EXCESSIVE LOAD</td></tr><tr><td>4</td><td>CloseOnly</td><td>CLOSE ONLY</td></tr><tr><td>5</td><td>OpenOnly</td><td>OPEN ONLY</td></tr><tr><td>6</td><td>LineSegLimit</td><td>LINE SEGMENT LIMIT</td></tr><tr><td>7</td><td>NbrProblem</td><td>NEIGHBOR ERROR</td></tr><tr><td>8</td><td>PhaseLoss</td><td>PHASE LOSS</td></tr><tr><td>9</td><td>SrcBrkIsol</td><td>SRC BREAK ISOLATED</td></tr><tr><td>10</td><td>LoadShed</td><td>LOAD SHED</td></tr><tr><td>11</td><td>Short2Srces</td><td>SHORT TWO SOURCES</td></tr><tr><td>100</td><td>CoordProblem</td><td>COORD ERROR</td></tr><tr><td>101</td><td>PrevBadV</td><td>PREV BAD VOLT</td></tr></table> | Enumeration                  |                |                  | Binary | Value           | Description                          | 0     | NoResult          | NO RESULT                                      | 1 | CloseSwOK        | CLOSE SW OK                                                | 2 | Isolated        | ISOLATED                 | 3 | ExcessLoad  | EXCESSIVE LOAD                  | 4 | CloseOnly         | CLOSE ONLY                 | 5 | OpenOnly          | OPEN ONLY              | 6 | LineSegLimit     | LINE SEGMENT LIMIT     | 7  | NbrProblem       | NEIGHBOR ERROR          | 8 | PhaseLoss | PHASE LOSS | 9 | SrcBrkIsol | SRC BREAK ISOLATED | 10 | LoadShed | LOAD SHED | 11 | Short2Srces | SHORT TWO SOURCES | 100 | CoordProblem | COORD ERROR | 101 | PrevBadV | PREV BAD VOLT |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 0                            | NoResult          | NO RESULT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 1                            | CloseSwOK         | CLOSE SW OK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 2                            | Isolated          | ISOLATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 3                            | ExcessLoad        | EXCESSIVE LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 4                            | CloseOnly         | CLOSE ONLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 5                            | OpenOnly          | OPEN ONLY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 6                            | LineSegLimit      | LINE SEGMENT LIMIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 7                            | NbrProblem        | NEIGHBOR ERROR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 8                            | PhaseLoss         | PHASE LOSS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 9                            | SrcBrkIsol        | SRC BREAK ISOLATED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 10                           | LoadShed          | LOAD SHED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 11                           | Short2Srces       | SHORT TWO SOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 100                          | CoordProblem      | COORD ERROR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 101                          | PrevBadV          | PREV BAD VOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| RouteEntryError              | UINT16            | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>BadBdCastAdr</td><td>broadcast addresses invalid in routing tables;</td></tr><tr><td>2</td><td>IPPortNoMux</td><td>IP address and port indication must be mutually exclusive.</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Enumeration                  |                |                  | Binary | Value           | Description                          | 1     | BadBdCastAdr      | broadcast addresses invalid in routing tables; | 2 | IPPortNoMux      | IP address and port indication must be mutually exclusive. |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 1                            | BadBdCastAdr      | broadcast addresses invalid in routing tables;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 2                            | IPPortNoMux       | IP address and port indication must be mutually exclusive.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| RSD                          | UINT16            | <div>Runner Source Device</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Numeric Type, Range: 0-65535 |                | Action           | Value  | Multiplier      | 1                                    | Adder | 0                 |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Numeric Type, Range: 0-65535 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Action                       | Value             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Multiplier                   | 1                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Adder                        | 0                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| RTLFromSCADAPR               | UINT16            | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>RTLDisabBySCADAPR</td><td>Disabled</td></tr><tr><td>1</td><td>RTLEnabBySCADAPR</td><td>Enabled</td></tr><tr><td>2</td><td>NA</td><td>Not Applicable</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Enumeration                  |                |                  | Binary | Value           | Description                          | 0     | RTLDisabBySCADAPR | Disabled                                       | 1 | RTLEnabBySCADAPR | Enabled                                                    | 2 | NA              | Not Applicable           |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Enumeration                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| Binary                       | Value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 0                            | RTLDisabBySCADAPR | Disabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 1                            | RTLEnabBySCADAPR  | Enabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| 2                            | NA                | Not Applicable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |
| RTUAddress                   | UINT16            | DNP address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                |                  |        |                 |                                      |       |                   |                                                |   |                  |                                                            |   |                 |                          |   |             |                                 |   |                   |                            |   |                   |                        |   |                  |                        |    |                  |                         |   |           |            |   |            |                    |    |          |           |    |             |                   |     |              |             |     |          |               |

## Definitions of Historic Events

|                              |                    | <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
|------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|--------|------------|-------------|-------|-----------------|-----------------------------|---|-------------------|------------------------------------|---|--------------------|------------------------------------------|---|-------------------|-------------------------|---|-------------------|-------------------------|----|--------------|----------------------------------------------|----|------------|-----------------------------------------------|
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RTUlists                     | UINT16             | <div>Runner RTU lists</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RunnerIndex                  | UINT16             | <div>Local runner index number</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RunnerNumber                 | UINT16             | <div>Runner Number</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RunnerQuantity               | UINT16             | <div>Next data collection runner's quantity</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RunnerSize                   | UINT16             | <div>Size of recieved runner in BYTES</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0               |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Numeric Type, Range: 0-65535 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Action                       | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Multiplier                   | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Adder                        | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| RunnerType                   | UINT16             | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NETOBJTYPEUNDEF</td><td>NetObject type is undefined</td></tr><tr><td>1</td><td>NETOBJTYPEACKMESG</td><td>NetObject type acknowldege message</td></tr><tr><td>2</td><td>NETOBJTYPENACKMESG</td><td>NetObject type not acknowledging message</td></tr><tr><td>3</td><td>NETOBJTYPENETLIST</td><td>NetObject type net list</td></tr><tr><td>4</td><td>NETOBJTYPERAWPUSH</td><td>NetObject type raw push</td></tr><tr><td>16</td><td>NETxCMMCKRSP</td><td>ITD Communications check runner with routing</td></tr><tr><td>19</td><td>NETxNLRQST</td><td>Request a copy of the present Primary Netlist</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 0     | NETOBJTYPEUNDEF | NetObject type is undefined | 1 | NETOBJTYPEACKMESG | NetObject type acknowldege message | 2 | NETOBJTYPENACKMESG | NetObject type not acknowledging message | 3 | NETOBJTYPENETLIST | NetObject type net list | 4 | NETOBJTYPERAWPUSH | NetObject type raw push | 16 | NETxCMMCKRSP | ITD Communications check runner with routing | 19 | NETxNLRQST | Request a copy of the present Primary Netlist |
| Enumeration                  |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| Binary                       | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 0                            | NETOBJTYPEUNDEF    | NetObject type is undefined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 1                            | NETOBJTYPEACKMESG  | NetObject type acknowldege message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 2                            | NETOBJTYPENACKMESG | NetObject type not acknowledging message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 3                            | NETOBJTYPENETLIST  | NetObject type net list                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 4                            | NETOBJTYPERAWPUSH  | NetObject type raw push                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 16                           | NETxCMMCKRSP       | ITD Communications check runner with routing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |
| 19                           | NETxNLRQST         | Request a copy of the present Primary Netlist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |                 |                             |   |                   |                                    |   |                    |                                          |   |                   |                         |   |                   |                         |    |              |                                              |    |            |                                               |

|                               |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
|-------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|-------------------------------------------|--------|------------|--------------------------------------|-------|-------------|-------------------------------|----|-------------|---------------------------------------------|----|------------|-------------------------------------------|----|--------------|-------------------------------------------------------------|----|--------------|-------------------------------------------------------------|----|--------------|-----------------------------------------------------|----|-------------|------------------------------------|-----|-------------|-------------------------|
|                               |              | <table><tr><td>21</td><td>NETxNPRIRSP</td><td>Existing Primary Netlist Response to rqst</td></tr><tr><td>22</td><td>NETxACTPNL</td><td>Activate Primary Netlist After Delay</td></tr><tr><td>23</td><td>NETxNADJNLD</td><td>New Adjacent Netlist delivery</td></tr><tr><td>24</td><td>NETxDATCLCT</td><td>Data Collect Runner</td></tr><tr><td>25</td><td>NETxDATDLV</td><td>Data Block delivery runner</td></tr><tr><td>27</td><td>NETxADJNLRPT</td><td>Tie delivers an adjacent NL to a Runner Source for delivery</td></tr><tr><td>28</td><td>NETxADJDBRPT</td><td>Tie delivers an adjacent DB to a Runner Source for delivery</td></tr><tr><td>29</td><td>NETxADJDBDLV</td><td>Runner Source delivers an adjacent Data Block to FN</td></tr><tr><td>30</td><td>NETxPEERCHK</td><td>ITD Peer check runner with routing</td></tr><tr><td>160</td><td>NETxNETLRPT</td><td>Active Netlist reporter</td></tr></table> | 21                            | NETxNPRIRSP | Existing Primary Netlist Response to rqst | 22     | NETxACTPNL | Activate Primary Netlist After Delay | 23    | NETxNADJNLD | New Adjacent Netlist delivery | 24 | NETxDATCLCT | Data Collect Runner                         | 25 | NETxDATDLV | Data Block delivery runner                | 27 | NETxADJNLRPT | Tie delivers an adjacent NL to a Runner Source for delivery | 28 | NETxADJDBRPT | Tie delivers an adjacent DB to a Runner Source for delivery | 29 | NETxADJDBDLV | Runner Source delivers an adjacent Data Block to FN | 30 | NETxPEERCHK | ITD Peer check runner with routing | 160 | NETxNETLRPT | Active Netlist reporter |
| 21                            | NETxNPRIRSP  | Existing Primary Netlist Response to rqst                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 22                            | NETxACTPNL   | Activate Primary Netlist After Delay                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 23                            | NETxNADJNLD  | New Adjacent Netlist delivery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 24                            | NETxDATCLCT  | Data Collect Runner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 25                            | NETxDATDLV   | Data Block delivery runner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 27                            | NETxADJNLRPT | Tie delivers an adjacent NL to a Runner Source for delivery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 28                            | NETxADJDBRPT | Tie delivers an adjacent DB to a Runner Source for delivery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 29                            | NETxADJDBDLV | Runner Source delivers an adjacent Data Block to FN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 30                            | NETxPEERCHK  | ITD Peer check runner with routing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 160                           | NETxNETLRPT  | Active Netlist reporter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| SBOTimerValue                 | UINT16       | <div>Timer value for Select-Before-Operate. Unit = 0.1 sec.</div> <table><tr><td colspan="2">Numeric Type, Range: 0-6553.5</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>0.1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Numeric Type, Range: 0-6553.5 |             | Action                                    | Value  | Multiplier | 0.1                                  | Adder | 0           |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Numeric Type, Range: 0-6553.5 |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Action                        | Value        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Multiplier                    | 0.1          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Adder                         | 0            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| SideInfo                      | UINT16       | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>SIDEUNKOWN</td><td>Side information is unknown</td></tr><tr><td>1</td><td>SIDE1</td><td>This team member is on side 1 of the switch</td></tr><tr><td>2</td><td>SIDE2</td><td>This team member is on side of the switch</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Enumeration                   |             |                                           | Binary | Value      | Description                          | 0     | SIDEUNKOWN  | Side information is unknown   | 1  | SIDE1       | This team member is on side 1 of the switch | 2  | SIDE2      | This team member is on side of the switch |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Enumeration                   |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Binary                        | Value        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 0                             | SIDEUNKOWN   | Side information is unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 1                             | SIDE1        | This team member is on side 1 of the switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 2                             | SIDE2        | This team member is on side of the switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| SizeOfObject                  | UINT16       | <div>Size of the arriving object in bytes, also a flag/signal of arrival to State machine A</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Numeric Type, Range: 0-65535  |             | Action                                    | Value  | Multiplier | 1                                    | Adder | 0           |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Numeric Type, Range: 0-65535  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Action                        | Value        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Multiplier                    | 1            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Adder                         | 0            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| SrcNodeID                     | UINT16       | <div>NET Source Node ID</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65535</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Numeric Type, Range: 0-65535  |             | Action                                    | Value  | Multiplier | 1                                    | Adder | 0           |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Numeric Type, Range: 0-65535  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Action                        | Value        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Multiplier                    | 1            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Adder                         | 0            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| State                         | UINT16       | <div>State of the transition</div> <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>TransON</td><td>Transition to On</td></tr><tr><td>2</td><td>TransOFF</td><td>Transition to Off</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Enumeration                   |             |                                           | Binary | Value      | Description                          | 1     | TransON     | Transition to On              | 2  | TransOFF    | Transition to Off                           |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Enumeration                   |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Binary                        | Value        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 1                             | TransON      | Transition to On                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| 2                             | TransOFF     | Transition to Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| StatusFeedbackArea            | UINT16       | <div>Netx status feedback area, Data 1 is current state while Data 2 is the previous state</div> <table><tr><td colspan="2">Numeric Type, Range: 0-65536</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Numeric Type, Range: 0-65536  |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |
| Numeric Type, Range: 0-65536  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |             |                                           |        |            |                                      |       |             |                               |    |             |                                             |    |            |                                           |    |              |                                                             |    |              |                                                             |    |              |                                                     |    |             |                                    |     |             |                         |

## Definitions of Historic Events

|                              |               | <table><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Action                       | Value | Multiplier | 1      | Adder      | 0           |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
|------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------|------------|--------|------------|-------------|-------|---------------|-----------------------|---|----------|-------------------|---|----------|----------------------|---|------------|---------------------------|---|----------|------------|---|-----------|-------------|---|---------|------------------|---|----------|---------------|---|----------|------------------|---|-----------|---------------------|----|-----------|---------------------|----|----------|-------------|----|----------|------------------|----|----------|-------------------|----|-----------|---------------------|----|----------|-------------|----|---------|--------------------|
| Action                       | Value         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Multiplier                   | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Adder                        | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Substation                   | UINT16        | Present Substation<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Numeric Type, Range: 0-65535 |       | Action     | Value  | Multiplier | 1           | Adder | 0             |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Numeric Type, Range: 0-65535 |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Action                       | Value         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Multiplier                   | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Adder                        | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| SUMSessionEndReason          | UINT16        | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>DeviceStartup</td><td>Device Startup</td></tr><tr><td>1</td><td>Logoff</td><td>Logoff</td></tr><tr><td>2</td><td>Timeout</td><td>Timeout</td></tr><tr><td>3</td><td>Preempted</td><td>Preempted</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Enumeration                  |       |            | Binary | Value      | Description | 0     | DeviceStartup | Device Startup        | 1 | Logoff   | Logoff            | 2 | Timeout  | Timeout              | 3 | Preempted  | Preempted                 |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Enumeration                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Binary                       | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 0                            | DeviceStartup | Device Startup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 1                            | Logoff        | Logoff                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 2                            | Timeout       | Timeout                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 3                            | Preempted     | Preempted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| SwitchNum                    | UINT16        | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>Switch1</td><td>Switch 1</td></tr><tr><td>2</td><td>Switch2</td><td>Switch 2</td></tr><tr><td>3</td><td>Switch3</td><td>Switch 3</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Enumeration                  |       |            | Binary | Value      | Description | 1     | Switch1       | Switch 1              | 2 | Switch2  | Switch 2          | 3 | Switch3  | Switch 3             |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Enumeration                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Binary                       | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 1                            | Switch1       | Switch 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 2                            | Switch2       | Switch 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 3                            | Switch3       | Switch 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| SwitchOperationResult        | UINT16        | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>SOKNoRes</td><td>SW OK (no result yet)</td></tr><tr><td>1</td><td>ClsVerif</td><td>SW CLOSE VERIFIED</td></tr><tr><td>2</td><td>CIVerErr</td><td>SW CLOSE VERIFY FAIL</td></tr><tr><td>3</td><td>CIVerErrTr</td><td>SW CLOSE VERIFY FAIL TRIP</td></tr><tr><td>4</td><td>BadSwNum</td><td>BAD SW NUM</td></tr><tr><td>5</td><td>SwNotAuto</td><td>SW NOT AUTO</td></tr><tr><td>6</td><td>SBadDir</td><td>SW BAD DIRECTION</td></tr><tr><td>7</td><td>SwWasCls</td><td>SW WAS CLOSED</td></tr><tr><td>8</td><td>OpnVerif</td><td>SW OPEN VERIFIED</td></tr><tr><td>9</td><td>OpnVerErr</td><td>SW OPEN VERIFY FAIL</td></tr><tr><td>10</td><td>OpnXcesLd</td><td>SW OPEN EXCESS LOAD</td></tr><tr><td>11</td><td>SwWasOpn</td><td>SW WAS OPEN</td></tr><tr><td>12</td><td>CmdVerif</td><td>COMMAND VERIFIED</td></tr><tr><td>13</td><td>CmdRedun</td><td>COMMAND REDUNDANT</td></tr><tr><td>14</td><td>CmdVerErr</td><td>COMMAND VERIFY FAIL</td></tr><tr><td>15</td><td>BadCtlPt</td><td>BAD CTRL PT</td></tr><tr><td>16</td><td>ClsErrV</td><td>SW CLOSE FAIL VOLT</td></tr></table> | Enumeration                  |       |            | Binary | Value      | Description | 0     | SOKNoRes      | SW OK (no result yet) | 1 | ClsVerif | SW CLOSE VERIFIED | 2 | CIVerErr | SW CLOSE VERIFY FAIL | 3 | CIVerErrTr | SW CLOSE VERIFY FAIL TRIP | 4 | BadSwNum | BAD SW NUM | 5 | SwNotAuto | SW NOT AUTO | 6 | SBadDir | SW BAD DIRECTION | 7 | SwWasCls | SW WAS CLOSED | 8 | OpnVerif | SW OPEN VERIFIED | 9 | OpnVerErr | SW OPEN VERIFY FAIL | 10 | OpnXcesLd | SW OPEN EXCESS LOAD | 11 | SwWasOpn | SW WAS OPEN | 12 | CmdVerif | COMMAND VERIFIED | 13 | CmdRedun | COMMAND REDUNDANT | 14 | CmdVerErr | COMMAND VERIFY FAIL | 15 | BadCtlPt | BAD CTRL PT | 16 | ClsErrV | SW CLOSE FAIL VOLT |
| Enumeration                  |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Binary                       | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 0                            | SOKNoRes      | SW OK (no result yet)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 1                            | ClsVerif      | SW CLOSE VERIFIED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 2                            | CIVerErr      | SW CLOSE VERIFY FAIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 3                            | CIVerErrTr    | SW CLOSE VERIFY FAIL TRIP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 4                            | BadSwNum      | BAD SW NUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 5                            | SwNotAuto     | SW NOT AUTO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 6                            | SBadDir       | SW BAD DIRECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 7                            | SwWasCls      | SW WAS CLOSED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 8                            | OpnVerif      | SW OPEN VERIFIED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 9                            | OpnVerErr     | SW OPEN VERIFY FAIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 10                           | OpnXcesLd     | SW OPEN EXCESS LOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 11                           | SwWasOpn      | SW WAS OPEN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 12                           | CmdVerif      | COMMAND VERIFIED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 13                           | CmdRedun      | COMMAND REDUNDANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 14                           | CmdVerErr     | COMMAND VERIFY FAIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 15                           | BadCtlPt      | BAD CTRL PT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| 16                           | ClsErrV       | SW CLOSE FAIL VOLT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| SwitchPosition               | UINT16        | Switch position<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Numeric Type, Range: 0-65535 |       | Action     | Value  | Multiplier | 1           |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Numeric Type, Range: 0-65535 |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Action                       | Value         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |
| Multiplier                   | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |       |            |        |            |             |       |               |                       |   |          |                   |   |          |                      |   |            |                           |   |          |            |   |           |             |   |         |                  |   |          |               |   |          |                  |   |           |                     |    |           |                     |    |          |             |    |          |                  |    |          |                   |    |           |                     |    |          |             |    |         |                    |

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|--------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---|--------|--------|------------|-------------|-------|-------------------|--------------------------|---|-------------------|-------------------------------------------------------------|---|------------------|-------------------------------------------------------------|---|--------------------|-------------------------------------------------------|---|--------------------|------------------------------------|---|-------------------|----------------------------------------------|---|-----|-----|---|-----|-----|
|                          |                    | <table><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Adder                    | 0 |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Adder                    | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| SwitchRecord             | UINT16             | <table><tr><td colspan="2">Numeric Type, Range: 0-8</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Numeric Type, Range: 0-8 |   | Action | Value  | Multiplier | 1           | Adder | 0                 |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Numeric Type, Range: 0-8 |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Action                   | Value              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Multiplier               | 1                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Adder                    | 0                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| SwitchState              | UINT16             | <div>Switch State</div> <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>DATUSWSTAT_UNKOWN</td><td>Switch State is unknown</td></tr><tr><td>1</td><td>DATUSWSTAT_CLOSED</td><td>Switch State is closed</td></tr><tr><td>2</td><td>DATUSWSTAT_OPEN</td><td>Switch State is open</td></tr><tr><td>3</td><td>DATUSWSTAT_TRANS</td><td>Switch State is in transition</td></tr><tr><td>4</td><td>DATUSWSTAT_UNDEF</td><td>Switch State is undefined</td></tr></table>                                                                                                                                                                                            | Enumeration              |   |        | Binary | Value      | Description | 0     | DATUSWSTAT_UNKOWN | Switch State is unknown  | 1 | DATUSWSTAT_CLOSED | Switch State is closed                                      | 2 | DATUSWSTAT_OPEN  | Switch State is open                                        | 3 | DATUSWSTAT_TRANS   | Switch State is in transition                         | 4 | DATUSWSTAT_UNDEF   | Switch State is undefined          |   |                   |                                              |   |     |     |   |     |     |
| Enumeration              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Binary                   | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 0                        | DATUSWSTAT_UNKOWN  | Switch State is unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 1                        | DATUSWSTAT_CLOSED  | Switch State is closed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 2                        | DATUSWSTAT_OPEN    | Switch State is open                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 3                        | DATUSWSTAT_TRANS   | Switch State is in transition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 4                        | DATUSWSTAT_UNDEF   | Switch State is undefined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| SWnum                    | UINT16             | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>SW1</td><td>SW1</td></tr><tr><td>1</td><td>SW2</td><td>SW2</td></tr><tr><td>2</td><td>SW3</td><td>SW3</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Enumeration              |   |        | Binary | Value      | Description | 0     | SW1               | SW1                      | 1 | SW2               | SW2                                                         | 2 | SW3              | SW3                                                         |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Enumeration              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Binary                   | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 0                        | SW1                | SW1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 1                        | SW2                | SW2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 2                        | SW3                | SW3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| SWPos                    | UINT16             | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>SW1</td><td>SW1</td></tr><tr><td>2</td><td>SW2</td><td>SW2</td></tr><tr><td>3</td><td>SW3</td><td>SW3</td></tr><tr><td>4</td><td>SW4</td><td>SW4</td></tr><tr><td>5</td><td>SW5</td><td>SW5</td></tr><tr><td>6</td><td>SW6</td><td>SW6</td></tr><tr><td>7</td><td>SW7</td><td>SW7</td></tr><tr><td>8</td><td>SW8</td><td>SW8</td></tr></table>                                                                                                                                                                                                                                                             | Enumeration              |   |        | Binary | Value      | Description | 1     | SW1               | SW1                      | 2 | SW2               | SW2                                                         | 3 | SW3              | SW3                                                         | 4 | SW4                | SW4                                                   | 5 | SW5                | SW5                                | 6 | SW6               | SW6                                          | 7 | SW7 | SW7 | 8 | SW8 | SW8 |
| Enumeration              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Binary                   | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 1                        | SW1                | SW1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 2                        | SW2                | SW2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 3                        | SW3                | SW3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 4                        | SW4                | SW4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 5                        | SW5                | SW5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 6                        | SW6                | SW6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 7                        | SW7                | SW7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 8                        | SW8                | SW8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| syncstat                 | UINT16             | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>DATASYNCHSUCCESS</td><td>Operation was successful</td></tr><tr><td>1</td><td>DATSYNCHBADSTATE</td><td>Present States of Local Switches do not match Normal states</td></tr><tr><td>2</td><td>DATSYNCHNOTQUIET</td><td>IntelliTEAM is not 'quiet' (in the process of transferring)</td></tr><tr><td>3</td><td>DATSYNCHNETBADDATA</td><td>Netlist data is somehow invalid (e.g. no local teams)</td></tr><tr><td>4</td><td>DATSYNCHNINPROCESS</td><td>Presently processing a new netlist</td></tr><tr><td>5</td><td>DATSYNCHNORTUADDR</td><td>Device is not configured with an RTU address</td></tr></table> | Enumeration              |   |        | Binary | Value      | Description | 0     | DATASYNCHSUCCESS  | Operation was successful | 1 | DATSYNCHBADSTATE  | Present States of Local Switches do not match Normal states | 2 | DATSYNCHNOTQUIET | IntelliTEAM is not 'quiet' (in the process of transferring) | 3 | DATSYNCHNETBADDATA | Netlist data is somehow invalid (e.g. no local teams) | 4 | DATSYNCHNINPROCESS | Presently processing a new netlist | 5 | DATSYNCHNORTUADDR | Device is not configured with an RTU address |   |     |     |   |     |     |
| Enumeration              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Binary                   | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 0                        | DATASYNCHSUCCESS   | Operation was successful                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 1                        | DATSYNCHBADSTATE   | Present States of Local Switches do not match Normal states                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 2                        | DATSYNCHNOTQUIET   | IntelliTEAM is not 'quiet' (in the process of transferring)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 3                        | DATSYNCHNETBADDATA | Netlist data is somehow invalid (e.g. no local teams)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 4                        | DATSYNCHNINPROCESS | Presently processing a new netlist                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 5                        | DATSYNCHNORTUADDR  | Device is not configured with an RTU address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| SystemVoltage            | UINT16             | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>V69000</td><td>69000</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Enumeration              |   |        | Binary | Value      | Description | 1     | V69000            | 69000                    |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Enumeration              |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| Binary                   | Value              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |
| 1                        | V69000             | 69000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |   |        |        |            |             |       |                   |                          |   |                   |                                                             |   |                  |                                                             |   |                    |                                                       |   |                    |                                    |   |                   |                                              |   |     |     |   |     |     |

## Definitions of Historic Events

|                              |             | <table> <tr><td>2</td><td>V46000</td><td>46000</td></tr> <tr><td>3</td><td>V44000</td><td>44000</td></tr> <tr><td>4</td><td>V40600</td><td>40600</td></tr> <tr><td>5</td><td>V36000</td><td>36000</td></tr> <tr><td>6</td><td>V34500</td><td>34500</td></tr> <tr><td>7</td><td>V27600</td><td>27600</td></tr> <tr><td>8</td><td>V26400</td><td>26400</td></tr> <tr><td>9</td><td>V24900</td><td>24900</td></tr> <tr><td>10</td><td>V23900</td><td>23900</td></tr> <tr><td>11</td><td>V22900</td><td>22900</td></tr> <tr><td>12</td><td>V20800</td><td>20800</td></tr> <tr><td>13</td><td>V14400</td><td>14400</td></tr> <tr><td>14</td><td>V13800</td><td>13800</td></tr> <tr><td>15</td><td>V13200</td><td>13200</td></tr> <tr><td>16</td><td>V12470</td><td>12470</td></tr> <tr><td>17</td><td>V12000</td><td>12000</td></tr> <tr><td>18</td><td>V8320</td><td>8320</td></tr> <tr><td>19</td><td>V7200</td><td>7200</td></tr> <tr><td>20</td><td>V4800</td><td>4800</td></tr> <tr><td>21</td><td>V4160</td><td>4160</td></tr> <tr><td>22</td><td>V33000</td><td>33000</td></tr> <tr><td>23</td><td>V22000</td><td>22000</td></tr> <tr><td>24</td><td>V20000</td><td>20000</td></tr> <tr><td>25</td><td>V11000</td><td>11000</td></tr> <tr><td>26</td><td>V10000</td><td>10000</td></tr> </table> | 2                            | V46000 | 46000 | 3      | V44000 | 44000       | 4          | V40600    | 40600     | 5     | V36000 | 36000  | 6 | V34500 | 34500  | 7 | V27600  | 27600   | 8 | V26400     | 26400      | 9 | V24900    | 24900     | 10 | V23900 | 23900 | 11 | V22900   | 22900    | 12 | V20800      | 20800           | 13 | V14400 | 14400 | 14 | V13800 | 13800 | 15 | V13200 | 13200 | 16 | V12470 | 12470 | 17 | V12000 | 12000 | 18 | V8320 | 8320 | 19 | V7200 | 7200 | 20 | V4800 | 4800 | 21 | V4160 | 4160 | 22 | V33000 | 33000 | 23 | V22000 | 22000 | 24 | V20000 | 20000 | 25 | V11000 | 11000 | 26 | V10000 | 10000 |
|------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------|-------|--------|--------|-------------|------------|-----------|-----------|-------|--------|--------|---|--------|--------|---|---------|---------|---|------------|------------|---|-----------|-----------|----|--------|-------|----|----------|----------|----|-------------|-----------------|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|----|-------|------|----|-------|------|----|-------|------|----|-------|------|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|
| 2                            | V46000      | 46000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 3                            | V44000      | 44000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 4                            | V40600      | 40600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 5                            | V36000      | 36000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 6                            | V34500      | 34500                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 7                            | V27600      | 27600                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 8                            | V26400      | 26400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 9                            | V24900      | 24900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 10                           | V23900      | 23900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 11                           | V22900      | 22900                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 12                           | V20800      | 20800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 13                           | V14400      | 14400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 14                           | V13800      | 13800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 15                           | V13200      | 13200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 16                           | V12470      | 12470                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 17                           | V12000      | 12000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 18                           | V8320       | 8320                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 19                           | V7200       | 7200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 20                           | V4800       | 4800                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 21                           | V4160       | 4160                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 22                           | V33000      | 33000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 23                           | V22000      | 22000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 24                           | V20000      | 20000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 25                           | V11000      | 11000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 26                           | V10000      | 10000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Task                         | UINT16      | <table> <tr><th colspan="3">Numeric Type, Range: 0-65535</th></tr> <tr> <th>Action</th><th colspan="2">Value</th></tr> <tr> <td>Multiplier</td><td colspan="2">1</td></tr> <tr> <td>Adder</td><td colspan="2">0</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Numeric Type, Range: 0-65535 |        |       | Action | Value  |             | Multiplier | 1         |           | Adder | 0      |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Numeric Type, Range: 0-65535 |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Action                       | Value       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Multiplier                   | 1           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Adder                        | 0           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| TCPPortActiveState           | UINT16      | <table> <tr><th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>0</td><td>Undefined</td><td>Undefined</td></tr> <tr><td>1</td><td>Unused</td><td>Unused</td></tr> <tr><td>2</td><td>Active</td><td>Active</td></tr> <tr><td>3</td><td>Connect</td><td>Connect</td></tr> <tr><td>4</td><td>Disconnect</td><td>Disconnect</td></tr> <tr><td>5</td><td>Reconnect</td><td>Reconnect</td></tr> <tr><td>6</td><td>Error</td><td>Error</td></tr> <tr><td>7</td><td>Blocking</td><td>Blocking</td></tr> <tr><td>8</td><td>KpAliveSend</td><td>Send Keep Alive</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Enumeration                  |        |       | Binary | Value  | Description | 0          | Undefined | Undefined | 1     | Unused | Unused | 2 | Active | Active | 3 | Connect | Connect | 4 | Disconnect | Disconnect | 5 | Reconnect | Reconnect | 6  | Error  | Error | 7  | Blocking | Blocking | 8  | KpAliveSend | Send Keep Alive |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Enumeration                  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Binary                       | Value       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 0                            | Undefined   | Undefined                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 1                            | Unused      | Unused                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 2                            | Active      | Active                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 3                            | Connect     | Connect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 4                            | Disconnect  | Disconnect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 5                            | Reconnect   | Reconnect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 6                            | Error       | Error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 7                            | Blocking    | Blocking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 8                            | KpAliveSend | Send Keep Alive                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| TCPPortConnectState          | UINT16      | <table> <tr><th colspan="3">Enumeration</th></tr> <tr> <th>Binary</th><th>Value</th><th>Description</th></tr> <tr><td>1</td><td>Removed</td><td>Removed</td></tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Enumeration                  |        |       | Binary | Value  | Description | 1          | Removed   | Removed   |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Enumeration                  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| Binary                       | Value       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |
| 1                            | Removed     | Removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |        |       |        |        |             |            |           |           |       |        |        |   |        |        |   |         |         |   |            |            |   |           |           |    |        |       |    |          |          |    |             |                 |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |    |       |      |    |       |      |    |       |      |    |       |      |    |        |       |    |        |       |    |        |       |    |        |       |    |        |       |

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|--------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------|---------------|--------|------------|-------------|-------|------------|-------------|---|----------|-----------|---|-------------|-----------------|---|------------|----------------|---|-------|--------|---|-------|--------|---|-------|--------|---|-------|--------|---|-------|--------|---|---------------|-----------------|
|                          |               | <table><tr><td>2</td><td>Disconnecting</td><td>Disconnecting</td></tr><tr><td>3</td><td>Connecting</td><td>Connecting</td></tr><tr><td>4</td><td>Changed</td><td>Changed</td></tr><tr><td>5</td><td>Badstate</td><td>Bad state</td></tr><tr><td>6</td><td>KpAliveSent</td><td>Keep Alive Sent</td></tr><tr><td>7</td><td>KpAliveBad</td><td>Keep Alive Bad</td></tr></table>                                                                                                                                                                                                                                                                  | 2                        | Disconnecting | Disconnecting | 3      | Connecting | Connecting  | 4     | Changed    | Changed     | 5 | Badstate | Bad state | 6 | KpAliveSent | Keep Alive Sent | 7 | KpAliveBad | Keep Alive Bad |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 2                        | Disconnecting | Disconnecting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 3                        | Connecting    | Connecting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 4                        | Changed       | Changed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 5                        | Badstate      | Bad state                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 6                        | KpAliveSent   | Keep Alive Sent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 7                        | KpAliveBad    | Keep Alive Bad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Team                     | UINT16        | <div>Team number</div> <table><tr><td colspan="2">Numeric Type, Range: 1-8</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Numeric Type, Range: 1-8 |               | Action        | Value  | Multiplier | 1           | Adder | 0          |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Numeric Type, Range: 1-8 |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Action                   | Value         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Multiplier               | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Adder                    | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| TeamNumber               | UINT16        | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>Team1</td><td>Team 1</td></tr><tr><td>2</td><td>Team2</td><td>Team 2</td></tr><tr><td>3</td><td>Team3</td><td>Team 3</td></tr><tr><td>4</td><td>Team4</td><td>Team 4</td></tr><tr><td>5</td><td>Team5</td><td>Team 5</td></tr><tr><td>6</td><td>Team6</td><td>Team 6</td></tr><tr><td>7</td><td>Team7</td><td>Team 7</td></tr><tr><td>8</td><td>Team8</td><td>Team 8</td></tr></table>                                                                                                                            | Enumeration              |               |               | Binary | Value      | Description | 1     | Team1      | Team 1      | 2 | Team2    | Team 2    | 3 | Team3       | Team 3          | 4 | Team4      | Team 4         | 5 | Team5 | Team 5 | 6 | Team6 | Team 6 | 7 | Team7 | Team 7 | 8 | Team8 | Team 8 |   |       |        |   |               |                 |
| Enumeration              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Binary                   | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 1                        | Team1         | Team 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 2                        | Team2         | Team 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 3                        | Team3         | Team 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 4                        | Team4         | Team 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 5                        | Team5         | Team 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 6                        | Team6         | Team 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 7                        | Team7         | Team 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 8                        | Team8         | Team 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| TeamNumberWithUnknown    | UINT16        | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>0</td><td>DirUnknown</td><td>Dir Unknown</td></tr><tr><td>1</td><td>Team1</td><td>Team 1</td></tr><tr><td>2</td><td>Team2</td><td>Team 2</td></tr><tr><td>3</td><td>Team3</td><td>Team 3</td></tr><tr><td>4</td><td>Team4</td><td>Team 4</td></tr><tr><td>5</td><td>Team5</td><td>Team 5</td></tr><tr><td>6</td><td>Team6</td><td>Team 6</td></tr><tr><td>7</td><td>Team7</td><td>Team 7</td></tr><tr><td>8</td><td>Team8</td><td>Team 8</td></tr><tr><td>9</td><td>TeamIsVirtual</td><td>Team is virtual</td></tr></table> | Enumeration              |               |               | Binary | Value      | Description | 0     | DirUnknown | Dir Unknown | 1 | Team1    | Team 1    | 2 | Team2       | Team 2          | 3 | Team3      | Team 3         | 4 | Team4 | Team 4 | 5 | Team5 | Team 5 | 6 | Team6 | Team 6 | 7 | Team7 | Team 7 | 8 | Team8 | Team 8 | 9 | TeamIsVirtual | Team is virtual |
| Enumeration              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Binary                   | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 0                        | DirUnknown    | Dir Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 1                        | Team1         | Team 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 2                        | Team2         | Team 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 3                        | Team3         | Team 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 4                        | Team4         | Team 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 5                        | Team5         | Team 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 6                        | Team6         | Team 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 7                        | Team7         | Team 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 8                        | Team8         | Team 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 9                        | TeamIsVirtual | Team is virtual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| TeamRecord               | UINT16        | <div>Team record</div> <table><tr><td colspan="2">Numeric Type, Range: 0-8</td></tr><tr><td>Action</td><td>Value</td></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Numeric Type, Range: 0-8 |               | Action        | Value  | Multiplier | 1           | Adder | 0          |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Numeric Type, Range: 0-8 |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Action                   | Value         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Multiplier               | 1             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Adder                    | 0             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| TeamWithDone             | UINT16        | <table><tr><td colspan="3">Enumeration</td></tr><tr><td>Binary</td><td>Value</td><td>Description</td></tr><tr><td>1</td><td>Member1</td><td>Member 1</td></tr><tr><td>2</td><td>Member2</td><td>Member 2</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                    | Enumeration              |               |               | Binary | Value      | Description | 1     | Member1    | Member 1    | 2 | Member2  | Member 2  |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Enumeration              |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| Binary                   | Value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 1                        | Member1       | Member 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |
| 2                        | Member2       | Member 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |               |               |        |            |             |       |            |             |   |          |           |   |             |                 |   |            |                |   |       |        |   |       |        |   |       |        |   |       |        |   |       |        |   |               |                 |

## Definitions of Historic Events

|                              |             | <table><tr><td>3</td><td>Member3</td><td>Member 3</td></tr><tr><td>4</td><td>Member4</td><td>Member 4</td></tr><tr><td>5</td><td>Member5</td><td>Member 5</td></tr><tr><td>6</td><td>Member6</td><td>Member 6</td></tr><tr><td>7</td><td>Member7</td><td>Member 7</td></tr><tr><td>8</td><td>Member8</td><td>Member 8</td></tr><tr><td>256</td><td>Done</td><td>Done</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3                            | Member3 | Member 3 | 4      | Member4    | Member 4    | 5     | Member5     | Member 5                | 6 | Member6  | Member 6 | 7 | Member7 | Member 7 | 8 | Member8 | Member 8 | 256 | Done | Done |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
|------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------|----------|--------|------------|-------------|-------|-------------|-------------------------|---|----------|----------|---|---------|----------|---|---------|----------|-----|------|------|---|------|------|---|------|------|---|------|------|---|------|------|---|------|------|----|-------|-------|----|------|------|----|------|------|----|-----|-----|----|---------|---------|----|---------|---------|----|----------|----------|-----|-------|-------|
| 3                            | Member3     | Member 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 4                            | Member4     | Member 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 5                            | Member5     | Member 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 6                            | Member6     | Member 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 7                            | Member7     | Member 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 8                            | Member8     | Member 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 256                          | Done        | Done                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| TimeSource                   | UINT16      | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>MCUInternal</td><td>MCU internal oscillator</td></tr><tr><td>2</td><td>RTC</td><td>MCU RTC</td></tr><tr><td>3</td><td>GPS</td><td>MCU GPS</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Enumeration                  |         |          | Binary | Value      | Description | 1     | MCUInternal | MCU internal oscillator | 2 | RTC      | MCU RTC  | 3 | GPS     | MCU GPS  |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Enumeration                  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Binary                       | Value       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 1                            | MCUInternal | MCU internal oscillator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 2                            | RTC         | MCU RTC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 3                            | GPS         | MCU GPS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| totalen                      | UINT16      | <div>Total Length</div> <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Numeric Type, Range: 0-65535 |         | Action   | Value  | Multiplier | 1           | Adder | 0           |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Numeric Type, Range: 0-65535 |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Action                       | Value       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Multiplier                   | 1           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Adder                        | 0           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| TransferState                | UINT16      | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>IDLE</td><td>IDLE</td></tr><tr><td>1</td><td>INIT</td><td>INIT</td></tr><tr><td>2</td><td>RQST</td><td>RQST</td></tr><tr><td>3</td><td>GRNT</td><td>GRNT</td></tr><tr><td>4</td><td>RTN0</td><td>RTN0</td></tr><tr><td>5</td><td>RTN1</td><td>RTN1</td></tr><tr><td>6</td><td>RTN2</td><td>RTN2</td></tr><tr><td>7</td><td>RTN3</td><td>RTN3</td></tr><tr><td>8</td><td>WAIT</td><td>WAIT</td></tr><tr><td>9</td><td>STOP</td><td>STOP</td></tr><tr><td>10</td><td>FAULT</td><td>FAULT</td></tr><tr><td>11</td><td>HOLD</td><td>HOLD</td></tr><tr><td>12</td><td>CORA</td><td>CORA</td></tr><tr><td>13</td><td>PLI</td><td>PLI</td></tr><tr><td>14</td><td>PLIDONE</td><td>PLIDONE</td></tr><tr><td>15</td><td>PLIWAIT</td><td>PLIWAIT</td></tr><tr><td>16</td><td>PLIWAIT2</td><td>PLIWAIT2</td></tr><tr><td>255</td><td>UNDEF</td><td>UNDEF</td></tr></table> | Enumeration                  |         |          | Binary | Value      | Description | 0     | IDLE        | IDLE                    | 1 | INIT     | INIT     | 2 | RQST    | RQST     | 3 | GRNT    | GRNT     | 4   | RTN0 | RTN0 | 5 | RTN1 | RTN1 | 6 | RTN2 | RTN2 | 7 | RTN3 | RTN3 | 8 | WAIT | WAIT | 9 | STOP | STOP | 10 | FAULT | FAULT | 11 | HOLD | HOLD | 12 | CORA | CORA | 13 | PLI | PLI | 14 | PLIDONE | PLIDONE | 15 | PLIWAIT | PLIWAIT | 16 | PLIWAIT2 | PLIWAIT2 | 255 | UNDEF | UNDEF |
| Enumeration                  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Binary                       | Value       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 0                            | IDLE        | IDLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 1                            | INIT        | INIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 2                            | RQST        | RQST                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 3                            | GRNT        | GRNT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 4                            | RTN0        | RTN0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 5                            | RTN1        | RTN1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 6                            | RTN2        | RTN2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 7                            | RTN3        | RTN3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 8                            | WAIT        | WAIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 9                            | STOP        | STOP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 10                           | FAULT       | FAULT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 11                           | HOLD        | HOLD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 12                           | CORA        | CORA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 13                           | PLI         | PLI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 14                           | PLIDONE     | PLIDONE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 15                           | PLIWAIT     | PLIWAIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 16                           | PLIWAIT2    | PLIWAIT2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 255                          | UNDEF       | UNDEF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| URBESStatus                  | UINT16      | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>Enabled</td><td>Enabled</td></tr><tr><td>0</td><td>Disabled</td><td>Disabled</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Enumeration                  |         |          | Binary | Value      | Description | 1     | Enabled     | Enabled                 | 0 | Disabled | Disabled |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Enumeration                  |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| Binary                       | Value       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 1                            | Enabled     | Enabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| 0                            | Disabled    | Disabled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |
| ushort                       | UINT16      | UINT16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |         |          |        |            |             |       |             |                         |   |          |          |   |         |          |   |         |          |     |      |      |   |      |      |   |      |      |   |      |      |   |      |      |   |      |      |    |       |       |    |      |      |    |      |      |    |     |     |    |         |         |    |         |         |    |          |          |     |       |       |

|                              |                  | <table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                                                       | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0                |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
|------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--|--------|--------|------------|-------------|-------|------------------|--------------------------|---|----------------|-------------------------|---|-------------|--------------|---|--------------|---------------|---|--------|-------|---|-----------|-----------|
| Numeric Type, Range: 0-65535 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Action                       | Value            |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Multiplier                   | 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Adder                        | 0                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| VAddr16                      | UINT16           | 16-bit virtual memory address<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                      | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0                |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Numeric Type, Range: 0-65535 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Action                       | Value            |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Multiplier                   | 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Adder                        | 0                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| VMAccessAction               | UINT16           | VM Access Action<br><table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>ReadSpcl</td><td>ReadSpcl</td></tr><tr><td>1</td><td>Read</td><td>Read</td></tr><tr><td>2</td><td>Read1</td><td>Read</td></tr><tr><td>3</td><td>Write</td><td>Write</td></tr><tr><td>4</td><td>Write1</td><td>Write</td></tr><tr><td>5</td><td>WriteSpcl</td><td>WriteSpcl</td></tr></table> | Enumeration                  |  |        | Binary | Value      | Description | 0     | ReadSpcl         | ReadSpcl                 | 1 | Read           | Read                    | 2 | Read1       | Read         | 3 | Write        | Write         | 4 | Write1 | Write | 5 | WriteSpcl | WriteSpcl |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 0                            | ReadSpcl         | ReadSpcl                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 1                            | Read             | Read                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 2                            | Read1            | Read                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 3                            | Write            | Write                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 4                            | Write1           | Write                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 5                            | WriteSpcl        | WriteSpcl                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| VMFunctionCode               | UINT16           | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>Read</td><td>read</td></tr><tr><td>2</td><td>Write</td><td>write</td></tr></table>                                                                                                                                                                                                                               | Enumeration                  |  |        | Binary | Value      | Description | 1     | Read             | read                     | 2 | Write          | write                   |   |             |              |   |              |               |   |        |       |   |           |           |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 1                            | Read             | read                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 2                            | Write            | write                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| VMIndex                      | UINT16           | VM table index for this FeederNetID<br><table><tr><th colspan="2">Numeric Type, Range: 0-65535</th></tr><tr><th>Action</th><th>Value</th></tr><tr><td>Multiplier</td><td>1</td></tr><tr><td>Adder</td><td>0</td></tr></table>                                                                                                                                                                                                                | Numeric Type, Range: 0-65535 |  | Action | Value  | Multiplier | 1           | Adder | 0                |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Numeric Type, Range: 0-65535 |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Action                       | Value            |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Multiplier                   | 1                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Adder                        | 0                |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| XferInactiveReason           | UINT16           | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>1</td><td>XferDecline</td><td>Xfer Decline</td></tr><tr><td>2</td><td>XferSuccess</td><td>Xfer Success</td></tr><tr><td>3</td><td>XferStopped</td><td>Xfer Stopped</td></tr><tr><td>4</td><td>TimerExpired</td><td>Timer Expired</td></tr></table>                                                                         | Enumeration                  |  |        | Binary | Value      | Description | 1     | XferDecline      | Xfer Decline             | 2 | XferSuccess    | Xfer Success            | 3 | XferStopped | Xfer Stopped | 4 | TimerExpired | Timer Expired |   |        |       |   |           |           |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 1                            | XferDecline      | Xfer Decline                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 2                            | XferSuccess      | Xfer Success                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 3                            | XferStopped      | Xfer Stopped                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 4                            | TimerExpired     | Timer Expired                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| xmresultcode                 | UINT16           | <table><tr><th colspan="3">Enumeration</th></tr><tr><th>Binary</th><th>Value</th><th>Description</th></tr><tr><td>0</td><td>NETRETURNSUCCESS</td><td>NET return is successful</td></tr><tr><td>1</td><td>NETRETURNERROR</td><td>NET return has an error</td></tr></table>                                                                                                                                                                    | Enumeration                  |  |        | Binary | Value      | Description | 0     | NETRETURNSUCCESS | NET return is successful | 1 | NETRETURNERROR | NET return has an error |   |             |              |   |              |               |   |        |       |   |           |           |
| Enumeration                  |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| Binary                       | Value            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 0                            | NETRETURNSUCCESS | NET return is successful                                                                                                                                                                                                                                                                                                                                                                                                                     |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |
| 1                            | NETRETURNERROR   | NET return has an error                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |  |        |        |            |             |       |                  |                          |   |                |                         |   |             |              |   |              |               |   |        |       |   |           |           |

Table 3. Historic Events (851 items)

## Definitions of Historic Events

| Event Code (hex) | Event Code (dec) | Description                       | Category | Logging Level | Definition                                                                                                                                                   |
|------------------|------------------|-----------------------------------|----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0100             | 256              | Sw Opened on Extended PL or VL    | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0101             | 257              | Open on Extended PL or VL Failed  | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0102             | 258              | Switch Position Close Detected    | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0103             | 259              | Any Phase Voltage Loss Cleared    | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0104             | 260              | Any Phase OverCurrent Cleared     | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0105             | 261              | Tripped to Lockout Cleared        | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0106             | 262              | Reclosing Mismatch Cleared        | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0107             | 263              | Ground Trip Mismatch Cleared      | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0108             | 264              | Protection Settings-Mapped Pts OK | UIM[MCU] | Normal        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |

|      |     |                                   |          |        |                                                                                                                                                                                                    |
|------|-----|-----------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0109 | 265 | Prot Settings-Mapped Pts Mismatch | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010A | 266 | Profile Mismatch Error            | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010B | 267 | Recloser/Relay is in Reset State  | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010C | 268 | Frequency Trip Cleared            | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010D | 269 | Recloser/Relay is fault cycling   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010E | 270 | Any Phase Voltage Loss Detected   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 010F | 271 | Switch Position Open Detected     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 0110 | 272 | Any Phase OverCurrent Detected    | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: FaultDirection<br>Data 3:Debug Data Data3 Type: ConfigCurrentDir1<br>Data 4:Debug Data Data4 Type: CurrentDirDetectionMethod |
| 0111 | 273 | Data Poll Sent to Ext. Device     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                       |
| 0112 | 274 | Ext VL/PL qual-Sw already open    | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort                                                                                                                                                               |

## Definitions of Historic Events

|      |     |                                 |          |        |                                                                                                                                                              |
|------|-----|---------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                 |          |        | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                         |
| 0113 | 275 | Tripped to Lockout Active       | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0114 | 276 | Correct Profile Enabled         | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0115 | 277 | Reclosing Mismatch Detected     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0116 | 278 | Ground Trip Mismatch Detected   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0117 | 279 | Hot Line Tag Inactive           | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0118 | 280 | Automatic Operation Enabled     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0119 | 281 | SCADA Ctrl Point Operation Req. | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 011A | 282 | Ctrl Point Operation Successful | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 011B | 283 | Ctrl Operation Retries Failed   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |

|      |     |                                 |          |        |                                                                                                                                                              |
|------|-----|---------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 011C | 284 | Ctrl Point<br>Operation Retry   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 011D | 285 | Control Point<br>Operation Req. | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 011E | 286 | Response Timeout<br>from E.D.   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 011F | 287 | DNP Appl. Layer<br>Timeout      | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0120 | 288 | Device Data<br>Updates Enabled  | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0121 | 289 | Device Data<br>Updates Disabled | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0122 | 290 | Remote Mode<br>Enabled          | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0123 | 291 | Remote Mode<br>Disabled         | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0124 | 292 | Hot Line Tag<br>Active          | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0125 | 293 | Frequency Trip<br>Active        | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort                                                                                                                         |

## Definitions of Historic Events

|      |     |                                          |          |        |                                                                                                                                                              |
|------|-----|------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                          |          |        | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                         |
| 0126 | 294 | Recloser Blocked<br>Timer Expired        | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0127 | 295 | Recloser/Relay<br>not in Reset State     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0128 | 296 | Fault Cycling<br>State Cleared           | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0129 | 297 | Data Received<br>from Device             | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 012A | 298 | ITeam disabd<br>Extended<br>PL/VLoss     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 012B | 299 | ITeam enabled<br>Extended<br>PL/VLoss    | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 012C | 300 | Communication to<br>E.D. Lost            | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 012D | 301 | Communication<br>Lost to E.D.<br>Cleared | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 012E | 302 | Communication to<br>E.D. Stopped         | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |

|      |     |                                    |          |        |                                                                                                                                                              |
|------|-----|------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 012F | 303 | Communication to E.D. Running      | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0130 | 304 | E.D. Trouble Cleared               | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0131 | 305 | E.D. Trouble Active                | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0132 | 306 | Single Phase VLoss Trip Active     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0133 | 307 | Single Phase VLoss Trip Cleared    | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0134 | 308 | Three Phase VLoss Trip Active      | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0135 | 309 | Three Phase VLoss Trip Cleared     | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0136 | 310 | Ph/VLoss Bin Change Event Detected | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0137 | 311 | Fault Curr Bin Change Evt Detected | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0138 | 312 | SCADA Analog Output Request        | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort                                                                                                                         |

## Definitions of Historic Events

|      |     |                                     |          |        |                                                                                                                                                                                                     |
|------|-----|-------------------------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                     |          |        | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                |
| 0139 | 313 | E.D. Switch Contacts Bad            | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013A | 314 | E.D. Switch Contacts OK             | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013B | 315 | Unable to Register Peer             | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013C | 316 | Prohib Restor. Sent to Remote Dev   | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013D | 317 | Unqualif. SW State Chge Timer Start | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013E | 318 | E.D. Polled Data Bad                | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 013F | 319 | E.D. Polled Data OK                 | UIM[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 0140 | 320 | Instant Replay Status Update        | UIM[MCU] | Normal | Data 1:Switch State Data1 Type: ushort<br>Data 2:OC Status Data2 Type: ushort<br>Data 3:VL Status Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                        |
| 0141 | 321 | Switch 1 not in normal state active | DAT[MCU] | All    | Switch 1 not in normal state active<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |

|      |     |                                   |          |     |                                                                                                                                                                                                       |
|------|-----|-----------------------------------|----------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0142 | 322 | SW 1 not in normal state inactive | DAT[MCU] | All | Switch 1 not in normal state inactive<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0143 | 323 | Average Load Reset                | DAT[MCU] | All | Average Load Reset<br>Data 1: <b>AverageLoad</b> Data1 Type: AverageLoad<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort      |
| 0144 | 324 | Bus One Shot Lockout              | DAT[MCU] | All | Bus one shot lockout<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 0145 | 325 | Bus One Shot Active               | DAT[MCU] | All | Bus one shot active<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                   |
| 0146 | 326 | Bus One Shot Lock Out Cleared     | DAT[MCU] | All | Bus one shot lock out cleared<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort         |
| 0147 | 327 | Bus One Shot Cleared              | DAT[MCU] | All | Bus one shot lock cleared<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort             |
| 0148 | 328 | Normal Dir Current Flow On        | DAT[MCU] | All | Normal Dir Active<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                     |
| 0149 | 329 | Normal Dir Current Flow Off       | DAT[MCU] | All | Normal Dir Cleared<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                    |
| 014A | 330 | Reverse Dir Current Flow On       | DAT[MCU] | All | Reverse Dir Active<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                    |
| 014B | 331 | Reverse Dir Current Flow Off      | DAT[MCU] | All | Reverse Dir Cleared<br>Data 1:Debug Data Data1 Type: ushort                                                                                                                                           |

## Definitions of Historic Events

|      |     |                                      |          |     |                                                                                                                                                                                                          |
|------|-----|--------------------------------------|----------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                      |          |     | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                     |
| 014C | 332 | Current Dir Mismatch Active          | DAT[MCU] | All | Current Dir Mismatch Active<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort          |
| 014D | 333 | Current Dir Mismatch Cleared         | DAT[MCU] | All | Current Dir Mismatch Cleared<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort         |
| 014E | 334 | RTL Xmit Blocked                     | IIM[MCU] | All | Data 1:Debug Data Data1 Type: ManualOp<br>Data 2:Debug Data Data2 Type: HLT<br>Data 3:Debug Data Data3 Type: FreqTrip<br>Data 4:Debug Data Data4 Type: NoMaster                                          |
| 014F | 335 | PR Cleared After HLT Removal         | IIM[MCU] | All | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                             |
| 0150 | 336 | PR Unable to Clear After HLT Removal | IIM[MCU] | All | Data 1:Debug Data Data1 Type: ClearPRonHLTRem<br>Data 2:Debug Data Data2 Type: RTLFromSCADAPR<br>Data 3:Debug Data Data3 Type: FreqTrip<br>Data 4:Debug Data Data4 Type: ushort                          |
| 0151 | 337 | System Voltage Unrecognized Active   | IIM[MCU] | All | System Voltage Unrecognized Active<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort   |
| 0152 | 338 | System Voltage Unrecognized Inactive | IIM[MCU] | All | System Voltage Unrecognized Inactive<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0153 | 339 | IIM Trip to LO Cleared               | IIM[MCU] | All | IIM Trip to LO Cleared<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort               |
| 0154 | 340 | IIM Trip to LO Set                   | IIM[MCU] | All | IIM Trip to LO Set<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                   |

|      |     |                                     |          |        |                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|-----|-------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0155 | 341 | Fault Direction Inconsistent        | IIM[MCU] | All    | <p>Fault Direction Inconsistent</p> <p>Data 1:Debug Data Data1 Type: Hexushort<br/>Data 2:Debug Data Data2 Type: Hexushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                |
| 0201 | 513 | Event Register OK                   | DAT[MCU] | Normal | <p>The task indicated has enabled event registering for the specified team. The registering of an event is the process of making all team members aware that an event has occurred.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2: <b>Task</b> Data2 Type: Task<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                  |
| 0202 | 514 | Error Getting Internal IR Data      | DAT[MCU] | Normal | <p>An error was detected when the IntelliTEAM II software collected data related to the internal switch function.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                    |
| 0203 | 515 | Error Getting Local IR Data         | DAT[MCU] | Normal | <p>An error was detected when the IntelliTEAM II software retrieved data for the local switch in the specified team. This may occur if the switch/position number configured on the SETUP: Team screen is incorrect.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 0204 | 516 | Error Writing Coach Task-List Full  | DAT[MCU] | Normal | <p>The list of pending tasks that the coach carries between team members is full in the specified team. No more tasks can be put on this list until one or more of the existing tasks have been completed.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>           |
| 0205 | 517 | Error Writing Event Task-List Full  | DAT[MCU] | Normal | <p>The list of pending team-related tasks is full in the specified team. No more tasks can be put on this list until one or more of the existing tasks have been completed.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                          |
| 0206 | 518 | Error Writing Member Task-List Full | DAT[MCU] | Normal | <p>The list of pending member-process tasks is full in the specified team. No more tasks can be put on this list until one or more of the existing tasks have been completed.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                        |
| 0207 | 519 | Error Writing Comm Task-List        | DAT[MCU] | Normal | <p>The coach or the team member needs to send a new message to another team member and the DNP communications buffer is full.</p>                                                                                                                                                                                                                                                               |

## Definitions of Historic Events

|      |     |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|-----|-----------------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     | Full                              |          |          | Existing transactions must be completed before more are put on the communications list.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                     |
| 0208 | 520 | Error Getting Comm Task From List | DAT[MCU] | Normal   | An error was detected when removing a message from the DNP communications buffer.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                           |
| 0209 | 521 | New Coach Generated               | DAT[MCU] | Normal   | A new coach has been generated at the local team member for the specified team. This could be caused by a power up state, by the existing coach being lost due to communications failure, or by the existing coach data being inconsistent.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 020A | 522 | Coach Old - Duplicate or CRC Bad  | DAT[MCU] | Extended | The coach received by the specified team is not the current coach - it is a duplicate of the current coach or it contains data inconsistent with the presently expected data. The coach is rejected.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Coach Rejection Code</b> Data2 Type: CoachRejectionCode<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort          |
| 020B | 523 | Old or Duplicate Task Discarded   | DAT[MCU] | All      | The task taken from the event list on the specified team is either old or is a duplicate of an existing task. This occurs normally in the operation of the team as events are distributed throughout the team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                              |
| 020C | 524 | Switch Not Ready for Transfer     | DAT[MCU] | Normal   | The local IR on the specified team is not ready for transfer operations. This may be caused by an internal switch error (for example, a bad battery).<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                       |
| 020D | 525 | Unknown Event/Task Request        | DAT[MCU] | Normal   | An event or task for which the local team member is not programmed was requested within the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                 |
| 020E | 526 | Find Alternate Source Result      | DAT[MCU] | Normal   | During a transfer event, the team must find an alternate source, based on the alternate source sequence and the normal function of the switches within the team (both entered on the SETUP: Team screen). This message indicates the resulting switch record, to be                                                                                                                                             |

|      |     |                         |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----|-------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                         |          |          | used for the team indicated.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Rec</b> Data2 Type: MemberWithDoneAndEOL<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                             |
| 020F | 527 | Register Event Disabled | DAT[MCU] | Normal   | The registering of events for distribution within the specified team has been disabled at the local team member. This was probably caused by a change in the team's configuration on the SETUP: Team screen.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                           |
| 0210 | 528 | Member Requested        | DAT[MCU] | All      | The specified team has requested that the local team member execute the task indicated.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Task</b> Data2 Type: Task<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                 |
| 0211 | 529 | Close Switch OK         | DAT[MCU] | Normal   | The switch/position indicated was successfully closed by the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Switch Position</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                       |
| 0212 | 530 | Switch Closing Issue    | DAT[MCU] | Extended | The switch/position indicated failed to close or remain closed after a request by the specified team. Automatic operation may have been disabled at this team member, or the switch may have reopened during the shots-to-lockout time period.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Switch position</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                     |
| 0213 | 531 | Transfer Approved       | DAT[MCU] | Normal   | The transfer operation requested by the specified team, using the alternate source switch previously determined, was approved by the adjacent teams. The approval code is also shown. For details on the code, contact S&C.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Restore Condition Test Result</b> Data2 Type: RestoreConditionTestResult<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                              |
| 0214 | 532 | Transfer Declined       | DAT[MCU] | Normal   | The transfer operation requested by the specified team has been declined by the adjacent teams. The requesting team must look for another alternate source, or retry the operation on this alternate source if no other exists. Possible codes are: (code- definition) 2- Fault isolated, 3- Excessive load, 4- Open team not prepared for the transfer, 5- Closed team not prepared for the transfer, 6- Line segment limit exceeded, 7- Issue detected on one of the teams, 8- Phase loss isolated, 9- Source breaker isolated.<br><br>Data 1: <b>Team</b> Data1 Type: Team |

## Definitions of Historic Events

|      |     |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                |
|------|-----|------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                    |          |          | Data 2: <b>Restore Condition Test Result</b> Data2 Type: RestoreConditionTestResult<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                            |
| 0215 | 533 | Switch Open OK                     | DAT[MCU] | Normal   | The specified team successfully opened the switch/position indicated.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Switch Position</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                 |
| 0216 | 534 | Switch Opening Unsuccessful        | DAT[MCU] | Normal   | The specified team was unable to open the switch/position indicated.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Switch Position</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                  |
| 0217 | 535 | Operation Switch Function Return   | DAT[MCU] | Extended | This message displays the internal code returned during the operation of the local switch in the specified team. Contact S&C for code details, this code is application specific.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Switch Operation Result Code</b> Data2 Type: SwitchOperationResult<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0218 | 536 | Coach Arrived                      | DAT[MCU] | All      | This message logs the arrival of the coach, along with all the updated data, at the local team member for the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                              |
| 0219 | 537 | Coach Has Departed                 | DAT[MCU] | All      | This message logs the departure of the coach from the local team member for the specified team, and indicates where the coach is going next.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Goto Rec</b> Data2 Type: TeamRecord<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                     |
| 021A | 538 | Sequence Numbers Resynchronization | DAT[MCU] | Normal   | The sequence numbers of events for the specified team have fallen out of synchronization. The last sequence number received is shown. The local team member will now resynchronize the number.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                             |
| 021B | 539 | Coach Arrived on Request           | DAT[MCU] | All      | This message logs the arrival of the coach at the local team member of the specified team after the local team member requested the coach.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort                                                                                                                                                                 |

|      |     |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|-----|-------------------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                     |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                              |
| 021C | 540 | Volt/Fault Reset Occurred           | DAT[MCU] | Extended | The voltage loss and overcurrent indications maintained by the IntelliTEAM II software have been reset after either the Sectionalizer Reset Time or, if a transfer event has occurred, after team reconfiguration is complete.<br><br>Data 1: <b>Switch Position</b> Data1 Type: SwitchPosition<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                   |
| 021D | 541 | Coach is Held by Team Member        | DAT[MCU] | All      | The coach for the specified team is being held by the local team member. This occurs when a process is taking place at the local team member that requires the presence of coaches from both adjacent teams.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                          |
| 021E | 542 | Line Segment Faulted                | DAT[MCU] | Normal   | The line segment protected by the specified team is the location of the overcurrent fault on the circuit. The team will not attempt to restore service to this line segment.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                          |
| 021F | 543 | IR Opened for Transfer              | DAT[MCU] | Normal   | During a transfer event, the coach of the specified team opened the switch indicated to allow the transfer operation to continue. This may occur when one or more switches within the team are not coordinated to open at the same time as the other switches.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Rec</b> Data2 Type: SwitchRecord<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0220 | 544 | Return to Normal Start Event Req    | DAT[MCU] | Normal   | The Return to Normal timer has expired, allowing the Return to Normal process to start on the specified team. This message indicates that the specified team generated the event.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                     |
| 0221 | 545 | Return To Normal Disabled at Switch | DAT[MCU] | Normal   | The Return to Normal process will not be carried out on the specified team because Return to Normal is disabled on the SETUP: Team screen.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                            |
| 0222 | 546 | Return to Normal Timer Started      | DAT[MCU] | Normal   | The Return to Normal timer was started by the local team member of the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort                                                                                                                                                                                                                                                                |

## Definitions of Historic Events

|      |     |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----|-------------------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                     |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                          |
| 0223 | 547 | Return to Normal Start Event Rcvd   | DAT[MCU] | Normal   | The local team member of the specified team received a request to start the Return to Normal process. This follows the end of the Return to Normal timer and the subsequent event request.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                        |
| 0224 | 548 | Return to Normal Process Stopped    | DAT[MCU] | Extended | The Return to Normal process completed at the local team member with the indicated completion code. For details on the code, contact S&C.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Code</b> Data2 Type: InternalCode<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                 |
| 0225 | 549 | Return to Normal Continue OK        | DAT[MCU] | Normal   | The internal Return to Normal process for the specified team indicated that Return to Normal may continue to the next step. The process result code is also shown.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Code</b> Data2 Type: InternalCode<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                        |
| 0226 | 550 | Task Travel                         | DAT[MCU] | All      | During a Return to Normal process, tasks associated with the process travel among multiple teams between the normal source and the normal tie point of the circuit. This message traces the path of the tasks.<br><br>Data 1: <b>from Team</b> Data1 Type: Team<br>Data 2: <b>Team</b> Data2 Type: Team<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                               |
| 0227 | 551 | Return to Normal Proc Unsuccessful  | DAT[MCU] | Normal   | The internal Return to Normal process for the specified team indicated that Return to Normal cannot continue. This may be caused by a team member that has Return to Normal disabled (Code 7), or by the adjacent source team not yet being in its normal state (Code 6).<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Code</b> Data2 Type: InternalCode<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0228 | 552 | Config Update - Operation Suspended | DAT[MCU] | Normal   | The team configuration of any of the active local teams is being changed on the SETUP: Team screen. While this change is in progress, team operation is suspended.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                |
| 022A | 554 | Internal Test Point                 | DAT[MCU] | Normal   | A general internal message to display data that may be helpful during diagnostics. Please contact S&C if you see this message.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort                                                                                                                                                                                                                                    |

|      |     |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|-----|-----------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                   |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 022B | 555 | Coach Collect Data                | DAT[MCU] | Extended | This message logs the collection of new data by the coach in the specified team. This data collection process occurs during the start of a transfer event. The team record where the coach is going is also shown.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Goto Rec</b> Data2 Type: MemberWithDoneAndEOL<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                           |
| 022C | 556 | Coach Hold Override               | DAT[MCU] | All      | When the team member of the specified team holds the coach for an extended period of time, an override occurs that allows the coach to briefly visit other team members. This prevents the coach from becoming old and regenerated by an adjacent team member. The team record where the coach is going is also shown.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Goto Rec</b> Data2 Type: TeamRecord<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 022D | 557 | Rebuilding Coach                  | DAT[MCU] | Normal   | The coach for the specified team is being regenerated. This may be caused by a power up event, a configuration change in the team, or a lost coach due to communications failure. A diagnostic code is also shown, contact S&C for code details.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Task identifier Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                            |
| 0230 | 560 | Team Not Ready - Discard Task     | DAT[MCU] | All      | The indicated task has been discarded because the specified team was not ready to transfer. This is typically the result of a local or team error condition.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Task</b> Data2 Type: Task<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                     |
| 0231 | 561 | SCADA Prohibit Restoration Active | DAT[MCU] | Normal   | A SCADA command was received to prevent the restoration of any load by this team member (the switch may not close automatically), however protection is not affected. If applicable, this message will also be displayed on power up.<br><br>Data 1:Debug Data Data1 Type: PRReason<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                          |
| 0232 | 562 | Timer Prohibit Restoration Active | DAT[MCU] | Normal   | The Prohibit Restoration Timer expired, preventing the restoration of load by the team for which the timer expired, however automatic sectionalizing is not affected. If applicable, this message will also be displayed on power-up.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                            |
| 0235 | 565 | Team Communication                | DAT[MCU] | Normal   | A team-related message could not be delivered.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## Definitions of Historic Events

|      |     |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                  |
|------|-----|-------------------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     | Error                               |          |          | Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>RTU</b> Data2 Type: RTUAddress<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                |
| 0236 | 566 | Monitor Line Segment                | DAT[MCU] | All      | The specified team has an indication to start a transfer event, but the line segment is still energized. The team monitors the segment until it is deenergized.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                              |
| 0238 | 568 | Not All Configured Teams Xfer Ready | DAT[MCU] | Normal   | At least one of the active teams where the local control is a member is not fully operational.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                               |
| 0239 | 569 | Transfer in Progress on Any Team    | DAT[MCU] | Normal   | A team is in the process of reconfiguring the circuit and transferring load to an alternate source.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                          |
| 023A | 570 | RTN in Progress on Any Team         | DAT[MCU] | Normal   | A team is presently returning the circuit to its normal configuration.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                       |
| 023B | 571 | Adjust Line Segment Count           | DAT[MCU] | Extended | Specified team has increased or decreased the line segment count associated with the Line Segment Limit set point, following a transfer event.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                               |
| 023C | 572 | Software Mismatch on Arriving Coach | DAT[MCU] | Normal   | There is a software revision incompatibility within the team. The data fields show revision and version information for the team member from which the coach just arrived.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                   |
| 023D | 573 | Switch Open - Extended Parallel     | DAT[MCU] | Normal   | During a closed transition Return to Normal, the team member at a tie switch automatically opened the switch after a prescribed timeout. This insured that a circuit parallel was not left in place indefinitely. This condition is not normal, and may have resulted in load being dropped.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort |

|      |     |                               |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|-----|-------------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                               |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 023E | 574 | Unexpected State Change       | DAT[MCU] | Extended | The transfer state went through an unexpected transition at the specified team. This error might stop an ongoing transfer process.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                          |
| 023F | 575 | Loading Data Reset            | DAT[MCU] | Extended | When a transfer with a known load value occurs, the IntelliTEAM II software resets the loading data to reflect the new value. This updates the information more quickly than the 2-minute load averaging. The code relates to the state of the reset process.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Task identifier Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                          |
| 0240 | 576 | Contract Receiver Busy        | DAT[MCU] | Extended | A contract agent's receiver buffer was full, so a contract message was dropped. The numbers for the specified agent are associated with the RTU address at the originating team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: <b>Agent</b> Data3 Type: Agent<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                             |
| 0241 | 577 | Contract Added to List        | DAT[MCU] | All      | A new contract was added to the list of contracts being maintained. This message shows both the requesting and granting teams associated with the transfer process. The requesting team (Team 1) identifies the origin of the contract.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Team Data3 Type: Team<br>Data 4:Team Data4 Type: Team                                                                                                                               |
| 0242 | 578 | New Contract Addition Issue   | DAT[MCU] | Extended | A contract agent tried to add a new contract to its list but could not, so the contract was declined. The number for the specified agent is associated with the RTU address at the originating team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                           |
| 0243 | 579 | Contract Pending Issue        | DAT[MCU] | Extended | The requesting contract agent was waiting for a response when the timer ran out, so it the contract was unsuccessful. The coach may restart the contract request if it cannot find another alternate source. This message shows the two teams involved with the transfer process at this team member location, where (Team 1) is the requesting team.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0244 | 580 | Contract Request Was Declined | DAT[MCU] | Normal   | The granting agent declined the contract request. The number for the specified agent is associated with the RTU address at the originating team member. Note that this message can appear at any agent with the contract on its list.                                                                                                                                                                                                                                                                                                           |

## Definitions of Historic Events

|      |     |                                |          |          |                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----|--------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                |          |          | <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br/> Data 3: <b>Debug</b> Data Data3 Type: ushort<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p>                                                                                                                                                                                               |
| 0245 | 581 | Contract General Error         | DAT[MCU] | Extended | <p>The specified contract agent detected a contract error. The number for the agent is associated with the RTU address at the team member.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>Debug</b> Data Data2 Type: ushort<br/> Data 3: <b>Debug</b> Data Data3 Type: ushort<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p>                                                            |
| 0246 | 582 | Contract Request Travel        | DAT[MCU] | All      | <p>A contract request is traveling between teams. (Team 1) is the segment through which the request just came, and (Rec 2) is the team member in the direction where the request is headed.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>Team</b> Data2 Type: Team<br/> Data 3: <b>TeamRecord</b> Data3 Type: TeamRecord<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p>               |
| 0247 | 583 | Contract Request Was Accepted  | DAT[MCU] | Normal   | <p>The granting agent accepted the contract. The number for the specified agent is associated with the RTU address at the originating team member.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>Debug</b> Data Data2 Type: ushort<br/> Data 3: <b>Debug</b> Data Data3 Type: ushort<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p>                                                    |
| 0248 | 584 | Contract is Being Dissolved    | DAT[MCU] | Extended | <p>An active contract is no longer needed and is in the process of being dissolved. The number for the specified agent is associated with the RTU address at the originating team member.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br/> Data 3: <b>Debug</b> Data Data3 Type: ushort<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p> |
| 0249 | 585 | Contract Started by Member     | DAT[MCU] | All      | <p>A member of the specified team has determined that it can close based on information from the coach, but it must first request a contract.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br/> Data 3: <b>Team</b> Data3 Type: Team<br/> Data 4: <b>TeamRecord</b> Data4 Type: TeamRecord</p>                                                 |
| 024A | 586 | Contract Approved Switch Close | DAT[MCU] | Normal   | <p>The specified team requested a contract, which then traveled to the granting agent, was approved, and came back. The switch has closed to energize the line segment.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br/> Data 3: <b>Team</b> Data3 Type: Team<br/> Data 4: <b>Debug</b> Data Data4 Type: ushort</p>                           |
| 024B | 587 | Contract Declined              | DAT[MCU] | Normal   | <p>The contract request made by the specified team was declined.</p> <p>Data 1: <b>Agent</b> Data1 Type: Agent<br/> Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition</p>                                                                                                                                                                                                                              |

|      |     |                                 |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|-----|---------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                 |          |          | Data 3: <b>Team</b> Data3 Type: Team<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                             |
| 024C | 588 | Contract Requested by Member    | DAT[MCU] | Normal   | The local team member has requested that the contract agent negotiate a contract on behalf of the specified team.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                             |
| 024D | 589 | Contract Requires Member Wait   | DAT[MCU] | All      | The specified team is waiting for a contract to be requested, granted, or declined.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: <b>Team</b> Data3 Type: Team<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                            |
| 024E | 590 | Contract Communication Received | DAT[MCU] | All      | The contract agent has received a message. (Team 1) refers to the contract's originating segment, and (Team 2) refers to the temporary segment, usually the segment through which the message just passed.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: <b>ContractState</b> Data4 Type: ContractState   |
| 024F | 591 | Contract Maintained             | DAT[MCU] | All      | Scheduled maintenance of a contract was performed by the specified requesting agent to confirm the continued need for the contract. The number for the agent is associated with the RTU address at the team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort           |
| 0250 | 592 | Duplicate Contract Received     | DAT[MCU] | All      | The specified requesting agent received an old or duplicate contract message, which refers to the indicated contract state. The number for the agent is associated with the RTU address at the team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: <b>ContractState</b> Data3 Type: ContractState<br>Data 4: Debug Data Data4 Type: ushort  |
| 0251 | 593 | Contract Transmit Busy          | DAT[MCU] | All      | A contract agent's transmit buffer was full. The message is held until the transmit buffer has space, and is then sent. The number for the specified agent is associated with the RTU address at the originating team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort |
| 0252 | 594 | Contract Dissolved by Member    | DAT[MCU] | Extended | The local team member has started the process to dissolve an active contract on behalf of the specified team.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition                                                                                                                                                                                                   |

## Definitions of Historic Events

|      |     |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------|-----|-------------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                     |          |          | Data 3: <b>Team</b> Data3 Type: Team<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                  |
| 0253 | 595 | Contract Resource Limitation        | DAT[MCU] | Normal   | A contract agent found that resources were not available for load transfer, because of either segment limitations (Code 2) or capacity limitations (Code 3). The contract agent did not forward the contract any further.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>ushort</b> Data2 Type: ushort<br>Data 3: <b>ushort</b> Data3 Type: ushort<br>Data 4: <b>ushort</b> Data4 Type: ushort                                                   |
| 0254 | 596 | Contract Cannot Travel              | DAT[MCU] | All      | The requesting contract agent does not know where the present source is, so it could not forward the contract request. The contract failed. The number for the specified agent is associated with the RTU address at the team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                               |
| 0255 | 597 | Contract Not Found                  | DAT[MCU] | All      | A contract agent received a message about a contract that is not in its list. This may result in the contract being dissolved and, if necessary, reactivated. The number for the specified agent is associated with the RTU address at the originating team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0256 | 598 | Contract Reactivated                | DAT[MCU] | Extended | The contract is missing somewhere along its routing path, so the requesting agent reactivated the contract. The number for the specified agent is associated with the RTU address at the originating team member.<br><br>Data 1: <b>Agent</b> Data1 Type: Agent<br>Data 2: <b>SwitchPosition</b> Data2 Type: SwitchPosition<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                   |
| 0257 | 599 | Alternate Source Flag Cleared       | DAT[MCU] | Extended | The line segment associated with the specified team is no longer being fed from an alternate source. This message usually follows a Return to Normal operation.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                           |
| 0258 | 600 | Member Cleared Task Lock Attributes | DAT[MCU] | All      | The team member logic cleared the execution lock on tasks present on the task list. These tasks may now be executed by the team member.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                   |
| 0259 | 601 | Pending Comm Message Cleared        | DAT[MCU] | All      | The coach has determined that a pending message is no longer valid, and should be removed from the communications transmit list.                                                                                                                                                                                                                                                                                                                              |

|      |     |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------|-----|------------------------------------|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                    |          |          | Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 025A | 602 | Prohibit Restoration Timer Expired | DAT[MCU] | Normal   | The timer for the Prohibit Restoration feature has expired and will cause Prohibit Restoration to become active. (Team 1) indicates the team number to which this event applies.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                    |
| 025B | 603 | Action Path Complete               | DAT[MCU] | All      | This message is displayed when the action path for operating the switch gear has completed all possible steps in either the forward or reverse direction.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                           |
| 025C | 604 | Next Action                        | DAT[MCU] | All      | The operation of the switch gear is progressing to the next action within the action path. (Action 1) indicates the action to be taken and can be one of the following codes: 3 Close for xfer, 20 Contract request, 21 Contract Terminate, 30 Block recloser, 31 Unblock recloser, 33 Block ground trip, 34 Unblock ground trip, 36 Alternate settings, 37 Normal, 253 Action path done. (Direction 2) is the direction the action path is going, either Forward (1) or Reverse (2).<br><br>Data 1: <b>Action</b> Data1 Type: Action<br>Data 2: <b>Direction</b> Data2 Type: Direction<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 025D | 605 | Control Feature OK                 | DAT[MCU] | Extended | Indicates the requested control feature executed normally. Possible point values are: 1 Point to operate switch, 2 Point to block reclosing, 3 Point to block ground trip, 4 Point to change profile.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Point</b> Data2 Type: Point<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                             |
| 025E | 606 | Control Feature Unsuccessful       | DAT[MCU] | Normal   | Indicates the requested control feature did not execute normally. Data2 Points: 1= Operate Device, 2= Block reclosing, 3= Block ground trip, 4= Change profile.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Point</b> Data2 Type: Point<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                   |
| 025F | 607 | Alternate Source Flag Set          | DAT[MCU] | Normal   | Alternate Source Flag Set.<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 0264 | 612 | Volt/Fault Idle Transfer State     | DAT[MCU] | All      | This message is output when all teams that the Device is a member of have their transfer stated back to idle, signaling a reset of the total 3 phase average load.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Definitions of Historic Events

|      |     |                                  |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|-----|----------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                  |          |        | <p>Data 1: <b>Switch Position</b> Data1 Type: SwitchPosition<br/> Data 2: Debug Data Data2 Type: ushort<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                         |
| 0266 | 614 | Volt/Fault Overcurrent Cleared   | DAT[MCU] | All    | <p>This message is output when an overcurrent fault was previously detected, the field now is not faulted and 3 phase voltage has returned, causing the coach to clear the latched overcurrent condition. For details on (Rec 2) contact S&amp;C.</p> <p>Data 1: <b>Team</b> Data1 Type: TeamRecord<br/> Data 2: <b>Rec</b> Data2 Type: SwitchRecord<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                                            |
| 0267 | 615 | Volt/Fault Voltage Loss Cleared  | DAT[MCU] | All    | <p>The coach clears a 3 phase voltage loss when: 3 phase voltage loss was previously detected and real time 3 phase voltage is now present and either the external device is in its normal state or the external device's normal job is a source sub. For details on Rec 2, contact S&amp;C.</p> <p>Data 1: <b>Team</b> Data1 Type: TeamRecord<br/> Data 2: <b>Rec</b> Data2 Type: SwitchRecord<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p> |
| 0268 | 616 | Volt/Fault Phase Loss Cleared    | DAT[MCU] | All    | <p>This message is output when a phase loss was previously detected, the external device is now in its normal open or close state, real time 3 phase voltage is present, causing the coach to clear the latched phase loss condition. For details on (Rec 2) contact S&amp;C.</p> <p>Data 1: <b>Team</b> Data1 Type: TeamRecord<br/> Data 2: <b>Rec</b> Data2 Type: SwitchRecord<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                |
| 0269 | 617 | DNP Feeder Loading Data Received | DAT[MCU] | All    | <p>Feeder loading data has been received from the source substation or breaker, and may be used in determining the capacity of the circuit during transfer operations. Data 1 indicates the circuit loading received in increments of 10 amps per count.</p> <p>Data 1: <b>Data</b> Data1 Type: LoadingCurrent<br/> Data 2: Debug Data Data2 Type: ushort<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                                       |
| 026A | 618 | Error Cleared - Gathering Data   | DAT[MCU] | Normal | <p>The error collecting data related to the internal switch function was cleared.</p> <p>Data 1: Debug Data Data1 Type: ushort<br/> Data 2: Debug Data Data2 Type: ushort<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                       |
| 026B | 619 | Device is Ready for Transfer     | DAT[MCU] | Normal | <p>The local switch on the specified team is ready for transfer operations.</p> <p>Data 1: Debug Data Data1 Type: ushort<br/> Data 2: Debug Data Data2 Type: ushort<br/> Data 3: Debug Data Data3 Type: ushort<br/> Data 4: Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                             |
| 026C | 620 | Config Update Operation          | DAT[MCU] | Normal | <p>The team configuration of any of the active local teams has been re-enabled on the SETUP: Team screen. Team operation is</p>                                                                                                                                                                                                                                                                                                                                                           |

|      |     |                                        |          |        |                                                                                                                                                                                                                                                                                                                                                                                                              |
|------|-----|----------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     | Resumed                                |          |        | <p>resumed.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                       |
| 026D | 621 | SCADA Prohibit Restoration Cleared     | DAT[MCU] | Normal | <p>A SCADA command was received to reenable the restoration of load by this team member, and the switch may be closed automatically. If applicable, this message will also be displayed on power up.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                              |
| 026E | 622 | Timer Prohibit Restoration Cleared     | DAT[MCU] | Normal | <p>A SCADA command was received to reenable the restoration of load by this team member, and the switch may be closed automatically. If applicable, this message will also be displayed on power up.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                              |
| 026F | 623 | All Teams Are Transfer Ready           | EVT[MCU] | Normal | <p>All teams are fully operational, and may close switches as necessary to transfer load and reconfigure the circuit.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                             |
| 0270 | 624 | Transfer Not Active on Any Team        | DAT[MCU] | Normal | <p>No teams are presently reconfiguring the circuit or transferring load.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                         |
| 0271 | 625 | RTN Not Active on Any Team             | DAT[MCU] | Normal | <p>No teams are presently returning the circuit to its normal configuration.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                      |
| 0272 | 626 | Unknown Message Type Received          | DAT[MCU] | Normal | <p>An IntelliTEAM message was received over communications but contains a message type that is not recognized. The team the message was intended for, and the message type received, are included in the data.</p> <p>Data 1: <b>Team</b> Data1 Type: Team<br/>Data 2: <b>Message Type Received</b> Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 0273 | 627 | Request Xfer Trip Prohibit Restoration | DAT[MCU] | Normal | <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort</p>                                                                                                                                                                                                                                                                                                                         |

## Definitions of Historic Events

|      |     |                                              |          |        |                                                                                                                                                              |
|------|-----|----------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                              |          |        | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                 |
| 0274 | 628 | Req Xfer Trip<br>Prohibit Rest on<br>DG Team | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0275 | 629 | Xfer Trip Prohibit<br>Restoration Active     | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0276 | 630 | Xfer Trip Prohibit<br>Restoration<br>Cleared | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0277 | 631 | DG Reconnect<br>Delay Started                | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0278 | 632 | DG Reconnect<br>Delay Expired                | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0279 | 633 | Not All Prohibit<br>Rest Flags<br>Cleared    | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 027A | 634 | Request Switch<br>Close For DG<br>Reconnect  | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 027B | 635 | Switch Closed For<br>DG Reconnection         | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 027C | 636 | DG Reconnect<br>Delay Terminated             | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |

|      |     |                                  |          |        |                                                                                                                                                              |
|------|-----|----------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 027D | 637 | DG Reconnect Delay Disabled      | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 027E | 638 | DG Reconnect Delay Counting Down | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 027F | 639 | Start Monitoring TTPR            | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0280 | 640 | Continue Monitoring TTPR         | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0281 | 641 | Could Not Find DG                | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0282 | 642 | Could Not Find Normal Source     | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0283 | 643 | Stop Monitoring TTPR             | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0284 | 644 | Source Side Team Not Defined     | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0285 | 645 | Could Not Start Monitoring TTPR  | DAT[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0287 | 647 | Transfer Declined Excess Load    | DAT[MCU] | Normal | Data 1: <b>Team</b> Data1 Type: Team                                                                                                                         |

## Definitions of Historic Events

|      |     |                                              |          |        |                                                                                                                                                                                                                                                                                                                                                                                                |
|------|-----|----------------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                              |          |        | Data 2: <b>ExcessLoad</b> Data2 Type: ExcessLoad<br>Data 3: <b>Unused</b> Data3 Type: ushort<br>Data 4: <b>Debug Data</b> Data4 Type: HealingType                                                                                                                                                                                                                                              |
| 0288 | 648 | Transfer Declined<br>Excess Load<br>Inactive | DAT[MCU] | Normal | Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Debug Data</b> Data2 Type: XferInactiveReason<br>Data 3: <b>Unused</b> Data3 Type: ushort<br>Data 4: <b>Unused</b> Data4 Type: ushort                                                                                                                                                                                                       |
| 0289 | 649 | Transfer Declined<br>Line Seg Limit          | DAT[MCU] | Normal | Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>LineSegLimit</b> Data2 Type: LineSegLimit<br>Data 3: <b>Unused</b> Data3 Type: ushort<br>Data 4: <b>Debug Data</b> Data4 Type: HealingType                                                                                                                                                                                                  |
| 028A | 650 | Transfer Declined<br>Line Seg Limit<br>Off   | DAT[MCU] | Normal | Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Debug Data</b> Data2 Type: XferInactiveReason<br>Data 3: <b>Unused</b> Data3 Type: ushort<br>Data 4: <b>Unused</b> Data4 Type: ushort                                                                                                                                                                                                       |
| 028D | 653 | DG Reconnect<br>Delay Terminated<br>Cleared  | DAT[MCU] | Normal | Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                               |
| 0290 | 656 | Normally Open<br>Switch Automatic<br>Open    | DAT[MCU] | Normal | A normally open team member has opened for an automatic (IntelliTEAM-initiated) reason. This may happen during Return To Normal process. The team and the member record number are provided.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Rec</b> Data2 Type: SwitchRecord<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                      |
| 0291 | 657 | DNP Message<br>Rejected                      | DAT[MCU] | Normal | An IntelliTEAM communication message to the provided RTU was rejected by communications. The rejection code is provided.<br><br>Data 1: <b>Rtu</b> Data1 Type: RTUAddress<br>Data 2: <b>Code</b> Data2 Type: CommErrorCode<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                   |
| 0292 | 658 | Transfer State<br>Change                     | DAT[MCU] | All    | The transfer state changed for the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                      |
| 0293 | 659 | Manual Operation<br>Team Condition<br>On     | DAT[MCU] | Normal | A team entered a non-operational state because an unexpected manual switch operation occurred. Typically the only expected manual switch operation is closing a source switch on a previously faulted team which proves that the fault is gone, and allows RTN process to take place (if RTN is enabled).<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: Debug Data Data2 Type: ushort |

|      |     |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|-----|-------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                     |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                           |
| 0294 | 660 | Manual Operation Team Condition OFF | DAT[MCU] | Normal   | The unexpected manual switch operation team condition was cleared. This can only occur as a result of a user request.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                              |
| 0295 | 661 | Manual Operation Not Cleared        | DAT[MCU] | Normal   | Manual Operation condition could not be cleared on a user request because the local team member is not in its normal state.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                        |
| 0296 | 662 | Wait For Team to Open               | DAT[MCU] | Normal   | IntelliTEAM is waiting for all switches in the team to open so that it can attempt to restore service to the team. This is likely to occur only during a 2nd contingency event.<br><br>Data 1: <b>team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                    |
| 0297 | 663 | Bad Voltage Reopen Flag             | DAT[MCU] | Normal   | Associated with the Team Member Requalify Time feature. Value of 1 means that the team member is disqualified on an unsuccessful attempt to close and a timer is started. Value of 0 means that the timer has cleared, and the team member can be considered as an alternate source again.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Flag value</b> Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0298 | 664 | ITII Source Loading Data Active     | DAT[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 0299 | 665 | ITII Source Loading Data Not Active | DAT[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 029A | 666 | ITII RT-Load Data Problem           | DAT[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 029B | 667 | ITII RT-Load Data Problem Cleared   | DAT[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 029C | 668 | ITII Cycling Status Cired(team rec) | DAT[MCU] | Normal   | Data 1: <b>Team</b> Data1 Type: TeamRecord<br>Data 2: <b>Rec</b> Data2 Type: SwitchRecord                                                                                                                                                                                                                                                                                                                                                                              |
| 029D | 669 | Team 1 is Ready to Transfer         | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 029E | 670 | Team 1 is in Not Ready state        | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 029F | 671 | Team 2 is Ready to Transfer         | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Definitions of Historic Events

|      |     |                                |          |          |                                                                                                                                                                                                                                                                                    |
|------|-----|--------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02A0 | 672 | Team 2 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A1 | 673 | Team 3 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A2 | 674 | Team 3 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A3 | 675 | Team 4 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A4 | 676 | Team 4 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A5 | 677 | Team 5 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A6 | 678 | Team 5 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A7 | 679 | Team 6 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A8 | 680 | Team 6 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02A9 | 681 | Team 7 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02AA | 682 | Team 7 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02AB | 683 | Team 8 is Ready to Transfer    | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02AC | 684 | Team 8 is in Not Ready state   | EVT[MCU] | Extended |                                                                                                                                                                                                                                                                                    |
| 02AD | 685 | RSH start after switch open    | DAT[MCU] | All      | Rapid Self Healing is being started after a switch has opened to isolate trouble.<br>Data 1: <b>Team</b> Data1 Type: ushort                                                                                                                                                        |
| 02AE | 686 | RSH failed - downstream team   | DAT[MCU] | All      | Rapid Self Healing was unable to restore load based on information from a team on the load side of the fault.<br>Data 1: <b>Team</b> Data1 Type: ushort                                                                                                                            |
| 02AF | 687 | RSH failed - faulted team      | DAT[MCU] | All      | Rapid Self Healing was unable to restore load based on the information from the faulted team.<br>Data 1: <b>Team</b> Data1 Type: ushort                                                                                                                                            |
| 02B0 | 688 | RSH monitoring in process      | DAT[MCU] | All      | Indicates that a coach monitoring task was started to watch the progress of the Rapid Self Healing process. This task will be used to revert back to a standard restoration process if Rapid Self Healing is unable to restore the load.<br>Data 1: <b>Team</b> Data1 Type: ushort |
| 02B1 | 689 | RSH has become active          | DAT[MCU] | All      | Logged when the coach is requested to make Rapid Self Healing active in that team.<br>Data 1: <b>Team</b> Data1 Type: ushort                                                                                                                                                       |
| 02B2 | 690 | RSH has become inactive        | DAT[MCU] | All      | Logged when the coach is requested to make Rapid Self Healing inactive in that team.<br>Data 1: <b>Team</b> Data1 Type: ushort                                                                                                                                                     |
| 02B3 | 691 | RSH is being started by player | DAT[MCU] | All      | Logged when the coach has requested the team member to initiate the Rapid Self Healing process. Data1= Team Number, Data2=                                                                                                                                                         |

|      |     |                                 |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|-----|---------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                 |          |        | <p>RSH Team.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 02B4 | 692 | RSH failed - reported by player | DAT[MCU] | All    | <p>If the team member finds that Rapid Self Healing is unable to complete it will log this message. If there are other tie points that may be used for RSH it will try those, indicated by the Try Number. The result code may be one of: (if code location 0 or 2) 1= No Alternate Source, 2= Not Enough Capacity, 3= Switch Trouble, 4= Timer Unavailable, 5= Unable to Register Peer, 6= Comm List Full, 7= Bad Try Number, 8= Bad Netlist, 9= Not RSH Enabled. (if code location 1) 3=Problem while waiting for RSH, 4= Timeout while waiting for RSH. Data1= Team Number, Data2= Result Code, Data3= Try Number, Data4= Code Location.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 02B5 | 693 | RSH action requested by player  | DAT[MCU] | All    | <p>The member's initial request to start Rapid Self Healing was successful. Data1= Team Number.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 02B6 | 694 | RSH action successful           | DAT[MCU] | All    | <p>The team member has received an indication that Rapid Self Healing has been successful. Success code will be 2. Data1= Team Number, Data2= Success Code.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 02B7 | 695 | RSH action taking place         | DAT[MCU] | All    | <p>The team member has initiated a Rapid Self Healing operation and is waiting for a result. Data1= Team Number.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 02B8 | 696 | RSH init at startup             | DAT[MCU] | All    | <p>A peer device was unable to be registered with the DNP communication system. The return code can be: 1= Error, 2= Already On List, 3= List Full, 4= Not On List, 5= Not Peer-To-Peer Compatible, 6= Delay Before Retrying. Data1= Return Code,</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                           |
| 02B9 | 697 | RSH timer was not available     | DAT[MCU] | Normal | <p>Logged during startup if no timer is available for the Rapid Self Healing process.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Definitions of Historic Events

|      |     |                                  |          |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|      |     |                                  |          |     | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 02BA | 698 | RSH disabled or switch trouble   | DAT[MCU] | All | If the switch is in manual mode, or IntelliTEAM event processing has not yet been in the associated teams, this message will be logged and Rapid Self Healing will not be allowed.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                           |
| 02BB | 699 | RSH trouble registering DNP peer | DAT[MCU] | All | A peer device was unable to be registered with the DNP communication system. The return code can be: 1= Error, 2= Already On List, 3= List Full, 4= Not On List, 5= Not Peer-to-Peer Compatible, 6= Delay Before Retrying. Data1= Return Code, Data2= Peer Address, Data4= Code Location.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                    |
| 02BC | 700 | RSH throw back operation         | DAT[MCU] | All | This indicates that the tie switch has completed its Rapid Self Healing operation and sending a response message back to the originating switch. The status can be: 6= Success, 7= Unable to Close Switch. Data1= Tie Switch Address, Data2= Originating Switch Address, Data3= RSH Status.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                  |
| 02BD | 701 | RSH peer removed after complete  | DAT[MCU] | All | The reported switch address has been removed from the DNP peer communications peer association list. Data1= Switch address.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                  |
| 02BE | 702 | RSH trouble starting operation   | DAT[MCU] | All | Rapid Self Healing was unable to begin due to one of the following reasons: 1= No Alternate Source, 2= Not Enough Capacity, 3= Switch Trouble, 4= Timer Unavailable, 5= Unable to Register Peer, 6= Comm List Full, 7= Bad Try Number, 8= Bad Netlist, 9= Not RSH Enabled. Data1= Trouble Code.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                              |
| 02BF | 703 | RSH initiated                    | DAT[MCU] | All | Logged at the originating team member when Rapid Self Healing has been initiated successfully. The message sent to the tie point includes the number of teams that will be restored, and the amount of load that will be restored, if the RSH action is executed at the tie switch. A response is then expected to find out whether the tie switch was able to close. Data1= Tie Switch Address, Data2= Tie Switch Position, Data3= Number of Teams, Data4= Load to Restore.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort |

|      |     |                                  |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|-----|----------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                  |          |        | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 02C0 | 704 | RSH switch operation trouble     | DAT[MCU] | All    | <p>Logged if the tie switch location is unable to close the switch. The specific reason for this trouble is related to the code location: 1= Rapid Self Healing Inactive, 2= Request Team Invalid, 3+4= RSH Disabled on Team, 5+6= Team Errors Present, 7= Switch Is Not Open, 8= Voltage State Issue, 9= Team Is Faulted, 10= Too Many Teams to Restore, 11+12= Not Enough Capacity, 13= Coach Task List Full, 14= Grant Team Invalid. Contact S&amp;C for further definitions of Data1, Data2, and Data3. Data4= Code Location.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>   |
| 02C1 | 705 | RSH switch op final status       | DAT[MCU] | Normal | <p>Indicates the status of operating a switch based on Rapid Self Healing. Switch operation status includes: 1= Good Operation, 2= Bad Operation, 3= Operation Timed Out. The RSH process status can be: 4= Timeout, 6= Good Status, 7= Bad Status. Data1= Switch Operation Status, Data2= RSH Process Status, Data4= Code Location.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                |
| 02C2 | 706 | RSH rcvd unexpected state change | DAT[MCU] | All    | <p>Logged if a Rapid Self Healing message is received that contains a state that conflicts with the present local RSH state. In general, if RSH is idle then a request to close may be accepted, and if a request to close has been transmitted then only a result response message can be accepted. RSH states include: 1= Idce, 2= Waiting, 3= Error, 4= Timeout, 5= Close Switch, 6= Result Response, 7= Remove Peer, 8= Waiting, 9= Responding. Data1= Present RSH State, Data2= Received RSH State, Data3= Present RSH Status.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 02C3 | 707 | Netlist initialization trouble   | DAT[MCU] | Normal | <p>If a Netlist is unable to be imported into the Team database this message is logged to indicate the reason. Data1= Trouble Code (1= Present states of local switches do not match normal states, 2= IntelliTEAM may be in the process of reconfiguration, 3= Netlist data is invalid, such as no local teams, 4= Presently processing a new netlist, 5= Device is not configured with an RTU address).</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                           |
| 02C4 | 708 | Netlist accepted by IntelliTEAM  | DAT[MCU] | Normal | <p>Indicates that a Netlist was successfully imported into the Team Database. The count of the number of teams included is also reported. Data1= Team Count.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                        |

## Definitions of Historic Events

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| 02C5 | 709 | Netlist rejected by IntelliTEAM   | DAT[MCU] | Normal   | <p>During import into the team database the Netlist was rejected either due to this device not being included in the Netlist, or trouble with the data while unpacking the Netlist.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                               |
| 02C6 | 710 | RSH alt source search result      | DAT[MCU] | Extended | <p>Logged when the Rapid Self Healing process searches for alternate sources during a reconfiguration process. The number of possible alternate sources Found is reported, along with the number Available for restoration after checking each alternate source for available capacity. Data1= Found, Data2= Available.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                           |
| 02C7 | 711 | Loading Agent Timer Unavailable   | DAT[MCU] | Normal   | <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 02C8 | 712 | Load Shedding Initiated           | DAT[MCU] | Normal   | <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 02C9 | 713 | Trouble Starting Load Shedding Op | DAT[MCU] | Normal   | <p>A new coach has been generated at a team member of the specified team. This can occur during power-up, if existing coach is lost due to communication failure, or existing coach data is inconsistent. Data1= Team.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                            |
| 02CA | 714 | Recvd Shed Rqst While in Process  | DAT[MCU] | Extended | <p>Indicates that a request to shed load was received while a previous request is in process. Data1= State (1= Start, 2= Return Response, 3= Cleanup, 4= Remove Peer, 5= Back to Normal, 65535= Idle), Data2= Target.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/> Data 2:Debug Data Data2 Type: ushort<br/> Data 3:Debug Data Data3 Type: ushort<br/> Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                                                                             |
| 02CB | 715 | Trouble During Shed Operation     | DAT[MCU] | Extended | <p>Indication of trouble during shed operations is dependent on the Code Location. Code Location 1 indicates the target switch is not presently closed (Data1 indicates switch state). Code Location 2 indicates associated team numbers are inconsistent (Data1 and Data2 are actual team numbers, Data3 is the requested team number). Code Location 3 indicates that team errors may be present (Data1 and Data2 are associated team numbers). Code Location 6 indicates that the priority of the load to be shed is too high to shed (Data1 shows the configured load priority). Code Location 7 indicates that there was trouble returning a load shed</p> |

|      |     |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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|      |     |                                    |          |          | <p>response message (Data1 is the destination address). Data1, Data2, and Data3 see above. Data4= Code Location.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                          |
| 02CC | 716 | Load Agent Throwback Operation     | DAT[MCU] | All      | <p>A load shed response message was sent back to the requesting device. The destination address is included. Data1= Destination.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                          |
| 02CD | 717 | Load Agent Trouble Adding DNP Peer | DAT[MCU] | Extended | <p>This is logged when a destination device for a load shed message is unable to be added (code location 2) or removed (code location 1) from the DNP peer list Data1= Return Code (1= Error, 2= Already on list, 3= list full, 4= not on list) Data2= Destination, Data4= Code Location.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 02CE | 718 | Load agent removed DNP peer        | DAT[MCU] | All      | <p>A destination peer device was successfully removed from the DNP peer list after a load shed operation was completed. This prevents the peer list from filling up over time. Data1= Destination.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                        |
| 02CF | 719 | Load agent remove restrictions     | DAT[MCU] | Extended | <p>Indicates that a switch that was used to shed load can again be used as a source for that load. The restriction from closing has been removed.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                         |
| 02D0 | 720 | Load Shedding Switch Mode Status   | DAT[MCU] | All      | <p>This is logged to show whether the Switch Mode status indicates that the team member is being blocked from operations due to a load shed operation. Data1= Team Number, Data2= Member Number, Data3= State (1= Transition to On, 2= Transition to Off).</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                |
| 02D1 | 721 | Overload monitoring started        | DAT[MCU] | Normal   | <p>Indicates beginning of load monitoring for the substation associated with this control since it is supplying sections that it normally does not supply. Data1= Source List Index in Net View.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                          |

## Definitions of Historic Events

|      |     |                               |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|-----|-------------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02D2 | 722 | Overload monitoring stopped   | DAT[MCU] | Normal   | <p>Indicates that load monitoring is no longer required for this source, since it is no longer carrying non-normal sections. Data1= Source List Index in Net View, Data2= Source Capacity, Data3= Present Load.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                           |
| 02D3 | 723 | Qualified Overload is present | DAT[MCU] | All      | <p>Indicates that an overload condition has been present for the specified length of time - this is the declaration we are not seeing a momentary transient. Data1= Source List Index in Netview, Data2= Source Capacity, Data3= Present Load.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>            |
| 02D4 | 724 | Overload Alarm Active         | DAT[MCU] | Normal   | <p>Alarm is active once an overload has been declared.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                                                    |
| 02D5 | 725 | Overload Alarm Removed        | DAT[MCU] | Normal   | <p>Overload condition has cleared and/or the source is no longer carrying extra sections.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                                                                                 |
| 02D6 | 726 | Load shed sequence started    | DAT[MCU] | Extended | <p>Indicates that the time on alarm state limit has passed, and an attempt will be made for a section to be transferred or shed to attempt to alleviate the condition. Data1= Source List Index in Net View, Data2= Source Capacity, Data3= Present Load.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p> |
| 02D7 | 727 | Load shed request sent        | DAT[MCU] | All      | <p>Shed request was sent to the specified RTU address. Data1= Destination Switch RTU, Data2= Destination Switch Team Number, Data3= Load Request.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                                                         |
| 02D8 | 728 | Load shed request not sent    | DAT[MCU] | All      | <p>Problem with communications prevented sending a shed request to the specified RTU address. Data1= Destination Switch RTU, Data2= Destination Switch Team Number, Data3= Load Request.</p> <p>Data 1:Debug Data Data1 Type: ushort<br/>Data 2:Debug Data Data2 Type: ushort<br/>Data 3:Debug Data Data3 Type: ushort<br/>Data 4:Debug Data Data4 Type: ushort</p>                                                                  |

|      |     |                                |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-----|--------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02D9 | 729 | Load shed request accepted     | DAT[MCU] | All    | Target RTU address device accepted the request and will act on it.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                |
| 02DA | 730 | Load shed request rejected     | DAT[MCU] | All    | Target RTU address device rejected the request and will not act on it.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                            |
| 02DB | 731 | Add to shed reject list        | DAT[MCU] | All    | Target RTU address will not be asked again during this overload occurrence. Data1= Destination RTU address Data2= Quantity in list.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                               |
| 02DC | 732 | Calculated alt source capacity | DAT[MCU] | All    | This message indicates the resources that are available on an alternate feeder as calculated during the RSH process. Data1= Return Code (0= Nodata, 1= Netlist update occurring, 2= Netlist good), Data2= Capacity, Data3= Segment Count, Data4= Netlist Team ID.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 02DD | 733 | Close Fail - Pulsing In-Op     | DAT[MCU] | All    | <br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                  |
| 02DE | 734 | Decision by IT to open switch  | DAT[MCU] | All    | Indicates decision by IT to open a switch (for Instant Replay)<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                    |
| 02E0 | 736 | Team Dropped for Load Shed     | DAT[MCU] | Normal | The team has been deenergized to reduce substation loading and will not be restored until the circuit is back to normal.<br><br>Data 1:Debug Data Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                            |
| 02E1 | 737 | PR due to Load Shed Active     | DAT[MCU] | Normal | Prohibit Restoration is active to prevent shed load from being restored from an alternate source.<br><br>Data 1:Debug Data Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                   |

## Definitions of Historic Events

|      |     |                                       |          |        |                                                                                                                                                                                                                                                                       |
|------|-----|---------------------------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02E2 | 738 | PR due to Load Shed InActive          | DAT[MCU] | Normal | Prohibit Restoration is inactive to prevent shed load from being restored from an alternate source.<br><br>Data 1:Debug Data Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 02E3 | 739 | Switch Open For Phase Isolation ON    | DAT[MCU] | Normal | Switch Opened For Phase Isolation Active<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                  |
| 02E4 | 740 | Switch Open For Phase Isolation OFF   | DAT[MCU] | Normal | Switch Opened For Phase Isolation NOT Active<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                              |
| 02E5 | 741 | Phase Loss Isolation Inform Mode ON   | DAT[MCU] | Normal | Phase Loss Isolation Inform Mode Active<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                   |
| 02E6 | 742 | Phase Loss Isolot. Inform Mode OFF    | DAT[MCU] | Normal | Phase Loss Isolation Inform Mode NOT Active<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                               |
| 02E7 | 743 | Phase Loss Timing Complete            | DAT[MCU] | Normal | Phase Loss Timing Complete<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                                |
| 02E8 | 744 | Phase Loss Isolation Event Continue   | DAT[MCU] | Normal | Phase Loss Isolation Event Continue<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                       |
| 02E9 | 745 | Sw1 Auto Manl Op. Clear Timer Started | DAT[MCU] | Normal | Sw1 Auto Manual Operation Clearing Timer Started<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                          |
| 02EA | 746 | Xfer Declined Load Data               | DAT[MCU] | Normal | Xfer Declined Load Data<br><br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                                   |
| 02ED | 749 | Load Shed Alarm Active                | DAT[MCU] | Normal | Alarm is active once arequirement to shed load been declared.                                                                                                                                                                                                         |

|      |     |                                       |          |        |                                                                                                                                                                                                                                                                                                                                            |
|------|-----|---------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                       |          |        | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                               |
| 02EE | 750 | Sys Volt Classification Diff Detected | DAT[MCU] | Normal | Alarm is active once arequirement to shed load been declared.<br><br>Data 1:Debug Data Data1 Type: SystemVoltage<br>Data 2:Debug Data Data2 Type: SystemVoltage<br>Data 3:Debug Data Data3 Type: MoreThanOneDiffFound<br>Data 4:Debug Data Data4 Type: ushort                                                                              |
| 02EF | 751 | Load Shed Alarm Removed               | DAT[MCU] | Normal | No longer need to shed load - load is below the limit or back to normal for Feeder Configuration.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                      |
| 02F0 | 752 | Return to Loop Timer Started          | DAT[MCU] | Normal | The Return to Loop timer was started by the local team member of the specified team.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                   |
| 02F1 | 753 | Return to Loop Continue OK            | DAT[MCU] | Normal | The internal Return to Loop process for the specified team indicated that Return to Loop may continue to the next step. The process result code is also shown.<br><br>Data 1: <b>Team</b> Data1 Type: Team<br>Data 2: <b>Code</b> Data2 Type: InternalCode<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 02F2 | 754 | Disregard First Overcurrent Enabled   | DAT[MCU] | Normal | Disregard First Overcurrent Enabled.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                   |
| 02F3 | 755 | Disregard First Overcurrent Disabled  | DAT[MCU] | Normal | Disregard First Overcurrent Enabled.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                   |
| 02F4 | 756 | OC Indication Requires Clearing       | DAT[MCU] | Normal | OC Indication Requires Clearing<br><br>Data 1:Debug Data Data1 Type: TeamNumber<br>Data 2:Debug Data Data2 Type: SWPos<br>Data 3:Debug Data Data3 Type: TransferState<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                              |
| 02F5 | 757 | Ignoring First OC is Active           | DAT[MCU] | Normal | Ignoring first OC is active<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                            |

## Definitions of Historic Events

|      |     |                                       |          |        |                                                                                                                                                                                                       |
|------|-----|---------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 02F6 | 758 | Ignoring First OC is Inactive         | DAT[MCU] | Normal | Ignoring First OC is Inactive<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort         |
| 02F7 | 759 | Average Loading Stopped               | DAT[MCU] | Normal | Average Loading Stopped<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort               |
| 02F8 | 760 | Average Loading Restored              | DAT[MCU] | Normal | Average Loading Restored<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort              |
| 02F9 | 761 | Calculated Real Capacity              | DAT[MCU] | Normal | Calculated Real Capacity<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort              |
| 02FA | 762 | Not All Teams Xfer Rdy Timer Active   | DAT[MCU] | Normal | Not All Teams Xfer Rdy Timer Active<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort   |
| 02FB | 763 | Not All Teams Xfer Rdy Timer Cleared  | DAT[MCU] | Normal | Not All Teams Xfer Rdy Timer Cleared<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort  |
| 02FC | 764 | Start Sending Transfer Trip           | DAT[MCU] | Normal | Start Sending Transfer Trip<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort           |
| 02FD | 765 | Transfer Trip Sending Rejected by RTL | DAT[MCU] | Normal | Transfer Trip Sending Rejected by RTL<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 02FE | 766 | Transfer Trip Sent Successfully       | DAT[MCU] | Normal | Transfer Trip Sent Successfully<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort       |
| 02FF | 767 | Transfer Trip Sent Unsuccessfully     | DAT[MCU] | Normal | Transfer Trip Sent Unsuccessfully<br>Data 1:Debug Data Data1 Type: ushort                                                                                                                             |

|      |     |                                 |          |        |                                                                                                                                                                                                                          |
|------|-----|---------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |     |                                 |          |        | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                     |
| 0300 | 768 | Compact Flash Operational Issue | LOG[MCU] | All    | Data 1:Error Code Data1 Type: ushort                                                                                                                                                                                     |
| 0301 | 769 | Logging Overflow (last events)  | LOG[MCU] | All    | Data 1: <b>Event ID</b> Data1 Type: ushort<br>Data 2: <b>Event ID</b> Data2 Type: ushort<br>Data 3: <b>Event ID</b> Data3 Type: ushort<br>Data 4: <b>Event ID</b> Data4 Type: ushort                                     |
| 0302 | 770 | LOG DNP Irregularity            | LOG[MCU] | All    | Data 1:Trace Info Data1 Type: ushort<br>Data 2:Error Code Data2 Type: ushort                                                                                                                                             |
| 0305 | 773 | High Volume Event Storage to CF | LOG[MCU] | All    | The task that writes the compact flash file has been rescheduled to run immediately because the event log input buffer is full.                                                                                          |
| 0307 | 775 | Invalid Log Request             | LOG[MCU] | All    | Data 1:Trace Info Data1 Type: ushort                                                                                                                                                                                     |
| 0308 | 776 | Diag. Data Definition Error     | LOG[MCU] | Normal | Data 1: <b>Diagnostic Data Type (Alarm, Warning or Error)</b> Data1 Type: LOGDiagType<br>Data 2:On-Event handle Data2 Type: ushort<br>Data 3:Off-Event handle Data3 Type: ushort<br>Data 4:Trace Info Data4 Type: ushort |
| 0309 | 777 | Diag. Data Processing Error     | LOG[MCU] | Normal | Data 1: <b>Diagnostic Data Type (Alarm, Warning or Error)</b> Data1 Type: LOGDiagType<br>Data 2:Debug Data2 Type: ushort<br>Data 3:Debug Data3 Type: ushort<br>Data 4:Trace Info Data4 Type: ushort                      |
| 030A | 778 | Alarm Condition is ON           | LOG[MCU] | Normal |                                                                                                                                                                                                                          |
| 030B | 779 | Alarm Condition is OFF          | LOG[MCU] | Normal |                                                                                                                                                                                                                          |
| 030C | 780 | Warning Condition is ON         | LOG[MCU] | Normal |                                                                                                                                                                                                                          |
| 030D | 781 | Warning Condition is OFF        | LOG[MCU] | Normal |                                                                                                                                                                                                                          |
| 0310 | 784 | Next Averaging Period           | LOG[MCU] | All    | Data 1:Period Number Data1 Type: ushort                                                                                                                                                                                  |
| 0311 | 785 | Averaging Data CF Write         | LOG[MCU] | All    | Data 1:File Cycle Number Data1 Type: ushort                                                                                                                                                                              |
| 0312 | 786 | Next Daily High/Low Period      | LOG[MCU] | All    | Data 1:Period Number Data1 Type: ushort                                                                                                                                                                                  |
| 0313 | 787 | Daily High/Low CF Write         | LOG[MCU] | All    |                                                                                                                                                                                                                          |

## Definitions of Historic Events

|      |      |                                 |          |        |                                                                                                                                                                                                                                          |
|------|------|---------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                 |          |        | Data 1:File Cycle Number Data1 Type: ushort                                                                                                                                                                                              |
| 0314 | 788  | Shutdown Processing LOG         | LOG[MCU] | Normal | Data 1:Trace Info Data1 Type: ushort                                                                                                                                                                                                     |
| 0315 | 789  | Communication Processor Startup | EVT[MCU] | Normal |                                                                                                                                                                                                                                          |
| 0316 | 790  | Spec. Evt Counters Cleared      | LOG[MCU] | Normal |                                                                                                                                                                                                                                          |
| 0317 | 791  | Status Counters Cleared         | LOG[MCU] | Normal |                                                                                                                                                                                                                                          |
| 0318 | 792  | Log Flooding Condition ON       | LOG[MCU] | Normal | Data 1:event ID Data1 Type: ushort                                                                                                                                                                                                       |
| 0319 | 793  | Log Flooding Condition OFF      | LOG[MCU] | Normal |                                                                                                                                                                                                                                          |
| 0320 | 800  | CF Query Action                 | LOG[MCU] | All    | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                                     |
| 0321 | 801  | CF Query Received               | LOG[MCU] | All    | Data 1: <b>Client-generated query code</b> Data1 Type: ushort                                                                                                                                                                            |
| 0322 | 802  | CF Query Frame Furnished        | LOG[MCU] | All    | Data 1: <b>Next Frame Sequence Number</b> Data1 Type: ushort<br>Data 2: <b>Position in CF read buffer</b> Data2 Type: ushort<br>Data 3: <b>Number of events in this frame</b> Data3 Type: ushort                                         |
| 0333 | 819  | CF Query New Frame Rqst         | LOG[MCU] | All    | Data 1: <b>Frame Sequence Number</b> Data1 Type: ushort                                                                                                                                                                                  |
| 0334 | 820  | CF Query: Last Frame Furnished  | LOG[MCU] | All    | Data 1: <b>Next Frame Sequence Number</b> Data1 Type: ushort<br>Data 2: <b>Position in CF read buffer</b> Data2 Type: ushort<br>Data 3: <b>Number of events in this frame</b> Data3 Type: ushort                                         |
| 0335 | 821  | CF Query Abort Request          | LOG[MCU] | All    | Data 1: <b>Frame Sequence Number</b> Data1 Type: ushort                                                                                                                                                                                  |
| 0336 | 822  | CF Query Has Timed Out          | LOG[MCU] | All    |                                                                                                                                                                                                                                          |
| 0337 | 823  | CF Query Disk Issue             | LOG[MCU] | All    | Data 1: <b>Issue Code</b> Data1 Type: ushort<br>Data 2: Data2 Type: ushort                                                                                                                                                               |
| 0501 | 1281 | BMM Setting Restore UnSuccess   | SUM[MCU] | Normal | An issue was encountered restoring user settings from the base memory. The settings were not restored.<br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort |
| 0502 | 1282 | User Config Restored From BMM   | SUM[MCU] | Normal | User configurable settings successfully restored from the base memory.                                                                                                                                                                   |

|      |      |                                    |          |        |                                                                                                                                                                                                                                                                  |
|------|------|------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0503 | 1283 | BMM Backup Config Unsuccessful     | SUM[MCU] | Normal | An issue was encountered storing user settings to the base memory. The settings were not successfully stored.<br><br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort              |
| 0504 | 1284 | User Configuration Backed Up to CF | SUM[MCU] | Normal | User configurable settings successfully stored to a compact flash file.                                                                                                                                                                                          |
| 0505 | 1285 | CF Backup Settings Save Unsuccess  | SUM[MCU] | Normal | An issue was encountered storing user settings to a compact flash file. The settings were not successfully stored.<br><br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort         |
| 0506 | 1286 | User Configuration Restored to CF  | SUM[MCU] | Normal | User configurable settings successfully restored from the a compact flash file.                                                                                                                                                                                  |
| 0507 | 1287 | CF Restore Settings UnSuccess      | SUM[MCU] | Normal | An issue was encountered restoring user settings from a compact flash file. The settings were not restored.<br><br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort                |
| 0508 | 1288 | Validate Settings Successful       | SUM[MCU] | Normal | The settings are valid.                                                                                                                                                                                                                                          |
| 0509 | 1289 | Settings Validation UnSuccess      | SUM[MCU] | Normal | An issue was encountered during a setting validation attempt. The settings are not valid and cannot be applied.<br><br>Data 1: <b>Settings Group</b> Data1 Type: ushort<br>Data 2: <b>Instance</b> Data2 Type: ushort<br>Data 3: <b>Error</b> Data3 Type: ushort |
| 050A | 1290 | Applied Settings Successfully      | EVT[MCU] | Normal | The settings were applied and are active in the control.                                                                                                                                                                                                         |
| 050B | 1291 | Settings Application UnSuccess     | EVT[MCU] | Normal | An issue was encountered while trying to apply settings to the control. All settings were not successfully applied. This most commonly occurs when settings are transferred from the MCU to the DSP.<br><br>Data 1:Error Code Data1 Type: ushort                 |
| 050C | 1292 | Refresh Settings Buffer Success    | SUM[MCU] | Normal | The settings buffer has been refreshed with the active settings.                                                                                                                                                                                                 |
| 050D | 1293 | Refresh Settings Buffer Issue      | SUM[MCU] | Normal | An issue was encountered while attempting to refresh the settings buffer. Values on the settings screens may not accurately reflect the active settings in the control.<br><br>Data 1:Error Code Data1 Type: ushort                                              |
| 050E | 1294 | Register Settings Block Issue      | SUM[MCU] | Normal | An issue was encountered during application initialization that prevented a group of settings from being successfully registered with the setup manager.<br><br>Data 1:Error Code Data1 Type: ushort                                                             |
| 050F | 1295 | Register Callback Issue            | SUM[MCU] | Normal | An issue was encountered during application initialization that prevented settings related functions from a subsystem from being successfully registered with the setup manager.                                                                                 |

## Definitions of Historic Events

|      |      |                                   |          |        |                                                                                                                                                                                                                                                          |
|------|------|-----------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                   |          |        | Data 1:Error Code Data1 Type: ushort                                                                                                                                                                                                                     |
| 0510 | 1296 | SUM Reg DNP Special Func. Warning | SUM[MCU] | Normal | An issue was encountered during application initialization that will prevent the functionality of one or more DNP commands.<br>Data 1:DNP Error Code Data1 Type: ushort<br>Data 2:Instance Data2 Type: ushort                                            |
| 0511 | 1297 | Register Non-Settings Block Issue | SUM[MCU] | Normal | An issue was encountered during application initialization that prevented a group of non-settings from being successfully registered with the setup manager for access rights checking.<br>Data 1:Error Code Data1 Type: ushort                          |
| 0512 | 1298 | User Login Access Denied          | SUM[MCU] | Normal | Access to Login was denied.<br>Data 1: <b>Access Denied Reason</b> Data1 Type: AccessDeniedReason                                                                                                                                                        |
| 0513 | 1299 | User Logout Access Denied         | SUM[MCU] | Normal | Access to Logout was denied.<br>Data 1: <b>Access Denied Reason</b> Data1 Type: AccessDeniedReason                                                                                                                                                       |
| 0514 | 1300 | BMM Not Ready                     | SUM[MCU] | Normal | The base memory module cannot be accessed.<br>Data 1:BMM State Data1 Type: ushort                                                                                                                                                                        |
| 0515 | 1301 | User Session Started              | EVT[MCU] | Normal | A user session was started.<br>Data 1: <b>User Id</b> Data1 Type: ushort<br>Data 2: <b>Port Number</b> Data2 Type: PortCode                                                                                                                              |
| 0516 | 1302 | User Session Ended                | EVT[MCU] | Normal | A user session was terminated.<br>Data 1: <b>User Id</b> Data1 Type: ushort<br>Data 2: <b>Session Ended Reason</b> Data2 Type: SUMSessionEndReason<br>Data 3: <b>Port Number</b> Data3 Type: PortCode                                                    |
| 0517 | 1303 | User Access Denied                | SUM[MCU] | Normal | Access to write a VM location was denied.<br>Data 1: <b>Access Denied Reason</b> Data1 Type: AccessDeniedReason<br>Data 2:Optional Data Depending on Reason Data2 Type: ushort                                                                           |
| 0518 | 1304 | Register Command to Block Issue   | SUM[MCU] | Normal | An issue was encountered during application initialization that prevented a command from being successfully registered with the setup manager to block based on source (IntelliLink WiFi or IntelliLink Remote).<br>Data 1:Error Code Data1 Type: ushort |
| 0519 | 1305 | Request Backup Received           | SUM[MCU] | Normal | The Setup Manager received a request from another subsystem to do a backup of settings.                                                                                                                                                                  |
| 051A | 1306 | Settings Backup Success           | SUM[MCU] | Normal | User configurable settings successfully stored to the base memory.                                                                                                                                                                                       |
| 051B | 1307 | Settings Restore Unsuccessful     | SUM[MCU] | Normal | An issue was encountered restoring user settings from the base memory. The settings were not restored.<br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort                 |
| 051C | 1308 | Settings Restore Success Alarm    | SUM[MCU] | Normal | User configurable settings successfully restored from the base memory.                                                                                                                                                                                   |
| 051D | 1309 | Settings Backup Unsuccessful      | SUM[MCU] | Normal | An issue was encountered storing user settings to the base memory. The settings were not successfully stored.                                                                                                                                            |

|      |      |                                        |          |        |                                                                                                                                                                                                                                                                                            |
|------|------|----------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                        |          |        | Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort                                                                                                                                                             |
| 051E | 1310 | Settings<br>Mismatch<br>Warning Off    | SUM[MCU] | Normal | User configurable settings have been applied.                                                                                                                                                                                                                                              |
| 051F | 1311 | Settings<br>Mismatch<br>Warning On     | SUM[MCU] | Normal | User configurable settings in the base memory are not of a compatible version with the firmware in the control so cannot be restored.<br><br>Data 1:SUM Error Code Data1 Type: ushort<br>Data 2:Called Function Return Data2 Type: ushort<br>Data 3:Step Data3 Type: ushort                |
| 0520 | 1312 | Apply Settings<br>Started              | SUM[MCU] | Normal | Apply of user configurable settings has started.                                                                                                                                                                                                                                           |
| 0521 | 1313 | Password Setting<br>Changed            | SUM[MCU] | Normal | A user group password settings change was applied.<br><br>Data 1: <b>GroupId</b> Data1 Type: ushort                                                                                                                                                                                        |
| 0522 | 1314 | IntelliLink<br>Intrusion On            | SUM[MCU] | Normal | User attempted three unsuccessful logons.                                                                                                                                                                                                                                                  |
| 0523 | 1315 | IntelliLink<br>Intrusion Off           | SUM[MCU] | Normal | Alarm re user attempting three unsuccessful logons was cleared                                                                                                                                                                                                                             |
| 0524 | 1316 | IntelliLink<br>Intrusion Attempt       | SUM[MCU] | Normal | User attempted unsuccessful logon                                                                                                                                                                                                                                                          |
| 0800 | 2048 | DNP Initialization<br>Complete         | DNP[MCU] | Normal | Displayed when initialization of DNP processes has completed without error.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                            |
| 0801 | 2049 | Route Table<br>Initialization Error    | DNP[MCU] | Normal | The routing table was unable to be initialized, preventing initialization of DNP processes from being completed.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort       |
| 0802 | 2050 | Point Map<br>Initialization Error      | DNP[MCU] | Normal | The point mapping table was unable to be initialized, preventing initialization of DNP processes from being completed.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0803 | 2051 | Error in<br>Configuration<br>Data      | DNP[MCU] | Normal | A configuration setup parameter was found to be set incorrectly or out of range.<br><br>Data 1: <b>Setup Value</b> Data1 Type: ushort<br>Data 2: <b>Min Value</b> Data2 Type: ushort<br>Data 3: <b>Max Value</b> Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                |
| 0804 | 2052 | Old Configuration<br>Remains in Effect | DNP[MCU] | Normal | Indicates that due to an error in configuration data the existing setup will continue to be used by the application.<br><br>Data 1:Debug Data Data1 Type: ushort                                                                                                                           |

## Definitions of Historic Events

|      |      |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                   |
|------|------|------------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                    |          |          | Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                              |
| 0805 | 2053 | Configuration Change Accepted      | DNP[MCU] | Normal   | Changes to the communications setup parameters were validated and have been made active within the application.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                               |
| 0806 | 2054 | Master Record Not Added            | DNP[MCU] | Normal   | The master record was unable to be added to the peer device list due to either an incorrect parameter or the peer device list is full.<br><br>Data 1: <b>Master Record Add Error</b> Data1 Type: MasterRecAddError<br>Data 2: Code Location Data2 Type: ushort<br>Data 3:Master Number Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 0807 | 2055 | Map Change Callback Init Error     | DNP[MCU] | Normal   | A DNP point map change callback function was unable to be registered due to a full callback list. This prevented initialization of DNP processes from being completed.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort        |
| 0808 | 2056 | Incorrect Frame Length             | DNP[MCU] | Extended | The actual length of the received DNP frame does not match the length indicated in the DNP data link header. The frame is discarded.<br><br>Data 1: <b>Actual Length</b> Data1 Type: ushort<br>Data 2: <b>Indicated Length</b> Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4: Code Location Data4 Type: ushort             |
| 0809 | 2057 | Serial Port Reset Error            | DNP[MCU] | Normal   | An error occurred in reset of a serial port during a communications setpoint configuration change. Changes to serial port configuration may not have taken affect.<br><br>Data 1: <b>Port Number</b> Data1 Type: PortCode<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 080A | 2058 | P2P Receive buffer full            | DNP[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                   |
| 080B | 2059 | P2P Fragment rcvd from transport   | DNP[MCU] | All      | Data 1: <b>Peer Address</b> Data1 Type: ushort<br>Data 2: <b>Fragment Length</b> Data2 Type: ushort<br>Data 3: <b>Port ID</b> Data3 Type: ushort<br>Data 4: <b>Fragment ID</b> Data4 Type: ushort                                                                                                                                                 |
| 080C | 2060 | Error Registering Special Function | DNP[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                   |
| 080D | 2061 | P2P Notification received          | DNP[MCU] | All      | Data 1: <b>Source Address / ID</b> Data1 Type: ushort<br>Data 2: <b>Destination Address /Code</b> Data2 Type: ushort                                                                                                                                                                                                                              |

|      |      |                                     |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|------|-------------------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                     |          |          | Data 3: <b>Sequence Number / Layer</b> Data3 Type: ushort<br>Data 4: <b>Connection ID/0</b> Data4 Type: ushort                                                                                                                                                                                                                                                                                                  |
| 080E | 2062 | TCP Port Maintenance                | DNP[MCU] | Extended | The actual length of the received DNP frame does not match the length indicated in the DNP data link header. The frame is discarded.<br><br>Data 1: <b>TCP Port Connect State</b> Data1 Type: TCPPortConnectState<br>Data 2: <b>TCP Port Active State</b> Data2 Type: TCPPortActiveState<br>Data 3: <b>Destination RTU Address</b> Data3 Type: RTUAddress<br>Data 4: <b>Diagnostic Value</b> Data4 Type: ushort |
| 0820 | 2080 | Invalid Transport Segment Length    | DNP[MCU] | Extended | The transport segment length of the DNP frame is invalid. The frame was discarded. The valid range is from 3 to 250.<br><br>Data 1: <b>Segment Length</b> Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                         |
| 0821 | 2081 | Receive Message Buffer Full         | DNP[MCU] | Extended | The transport function receive message buffers are full. These buffers hold the frame header information and other message details. The new frame is discarded.<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                         |
| 0822 | 2082 | Receive Data Buffer Full            | DNP[MCU] | Extended | The transport function receive data buffers are full. These buffers hold the data portion of the received DNP frames. The new frame is discarded.<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                       |
| 0823 | 2083 | Removed Old FIR-Only Message        | DNP[MCU] | All      | An incomplete fragment was discarded due to a newer message being received from the same source device.<br><br>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br>Data 4: Debug Data Data4 Type: ushort                                                                                         |
| 0824 | 2084 | App Layer Accepted FIR/FIN Message  | DNP[MCU] | All      | A single-frame fragment was successfully processed by the application layer and is being removed from the transport function buffers.<br><br>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br>Data 2: <b>Fragment Length</b> Data2 Type: ushort<br>Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br>Data 4: Debug Data Data4 Type: ushort                                               |
| 0825 | 2085 | App Layer Accepted FIN Only Message | DNP[MCU] | All      | A multi-frame fragment was successfully processed by the application layer and is being removed from the transport function buffers.<br><br>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br>Data 2: <b>Fragment Length</b> Data2 Type: ushort<br>Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br>Data 4: Debug Data Data4 Type: ushort                                                |

## Definitions of Historic Events

|      |      |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|------|------------------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0826 | 2086 | Frame Addition Unsuccessful        | DNP[MCU] | Extended | <p>A newly received frame of a multi-frame fragment was unable to be added to the fragment due to the 2k fragment size restriction. The fragment was discarded.</p> <p>Data 1: <b>Transport Header of Fragment</b> Data1 Type: DNPTransportHeader<br/>           Data 2: <b>Transport Header of Frame</b> Data2 Type: DNPTransportHeader<br/>           Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br/>           Data 4: Debug Data Data4 Type: ushort</p> |
| 0827 | 2087 | Fragment Not Found                 | DNP[MCU] | Extended | <p>A matching fragment was not found in the buffers for a newly received frame of a multi-frame fragment. The frame was discarded.</p> <p>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                            |
| 0828 | 2088 | Transp. Layer Xmit Frag Too Long   | DNP[MCU] | Extended | <p>The application layer was requested to send a fragment larger than the 2k size limitation.</p> <p>Data 1: <b>Fragment Length</b> Data1 Type: ushort<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                                                                             |
| 0829 | 2089 | Transp. Layer TX Frag Buffer Full  | DNP[MCU] | Extended | <p>No free buffer was found in the transport function transmit buffers. The application layer may save this message and reattempt to transmit.</p> <p>Data 1: Debug Data Data1 Type: ushort<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                                        |
| 082A | 2090 | Frame Accepted by Data Link Layer  | DNP[MCU] | All      | <p>A single frame was successfully handed off to the data link layer for transmit. Note that this may be a single frame of a multi-frame fragment.</p> <p>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br/>           Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br/>           Data 3: <b>Transport Header</b> Data3 Type: DNPTransportHeader<br/>           Data 4: <b>Frame Length</b> Data4 Type: ushort</p>                               |
| 082B | 2091 | Message Timed Out on Receive List  | DNP[MCU] | Extended | <p>A fragment was removed from the transport function receive buffer after an extended period of inactivity.</p> <p>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                                  |
| 082C | 2092 | Message Timed Out on Transmit List | DNP[MCU] | Extended | <p>A fragment was removed from the transport function transmit buffer after an extended period of inactivity.</p> <p>Data 1: <b>Transport Header</b> Data1 Type: DNPTransportHeader<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: <b>Source Address</b> Data3 Type: RTUAddress<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                                 |
| 082D | 2093 | Removed Deferred Read              | DNP[MCU] | Extended | <p>A DNP read request that was deferred due to an outstanding unsolicited message was removed due to reception of a newer</p>                                                                                                                                                                                                                                                                                                                                         |

|      |      |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|------|-----------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      | Request                           |          |          | request.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                    |
| 082E | 2094 | Frame Declined by Datalink        | DNP[MCU] | Extended | The datalink layer was unable to accept the request to transmit this frame. The frame transmit will be retried until it is accepted or the message times out on the transmit list.<br><br>Data 1: Error code returned by OS Data1 Type: ushort<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Transport Header</b> Data3 Type: DNPTransportHeader<br>Data 4: <b>Frame Length</b> Data4 Type: ushort |
| 082F | 2095 | Port Undefined in Transport       | DNP[MCU] | All      | <br>Data 1: <b>Destination Address</b> Data1 Type: ushort                                                                                                                                                                                                                                                                                                                                                                       |
| 0840 | 2112 | Reset Peer Link Sent              | DNP[MCU] | Extended | A Reset data link frame was sent to a peer device in an attempt to reinitialize peer-to-peer communications.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                           |
| 0841 | 2113 | Reset Peer Link Received          | DNP[MCU] | Extended | A Reset data link frame was received from the reported peer device.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Action Taken 1=record reinit 2=reset seq num only 3=new peer added</b> Data2 Type: DNPDLAction<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                    |
| 0842 | 2114 | Msg Taken Off Xmit List - No Peer | DNP[MCU] | Extended | The destination peer device was not found in the peer list, possibly due to a change in configuration. The message was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Application Control</b> Data3 Type: DNPAppControl<br>Data 4: <b>Function Code</b> Data4 Type: DNPAppFunctionCode                                       |
| 0843 | 2115 | Set URBE Timer Error              | DNP[MCU] | Extended | An error was detected when attempting to start an internal timer.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                           |
| 0844 | 2116 | No URBE Delay Timer               | DNP[MCU] | Extended | No free timer was found when attempting to start an internal timer.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                         |
| 0845 | 2117 | Duplicate Fragment Received       | DNP[MCU] | Extended | The application layer detected reception of a duplicate fragment. The previous response will be resent.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress                                                                                                                                                                                                |

## Definitions of Historic Events

|      |      |                                           |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|------|-------------------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                           |          |          | Data 3: <b>Application Control</b> Data3 Type: DNPApControl<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                                   |
| 0846 | 2118 | App. Layer Xmit<br>Fragment Too<br>Long   | DNP[MCU] | Extended | The application layer was requested to send a fragment larger than the 2k size limitation.<br><br>Data 1: <b>Fragment Length</b> Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                           |
| 0847 | 2119 | App. Layer TX<br>Fragment Buffer<br>Full  | DNP[MCU] | Extended | No free buffer was found in the application layer transmit list. The fragment may be retried or discarded.<br><br>Data 1: Code Location Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                    |
| 0848 | 2120 | Invalid Fragment<br>Length Received       | DNP[MCU] | Extended | The application layer detected a fragment with an invalid length. The valid rand is from 2 to 2048 bytes. The fragment was discarded.<br><br>Data 1: <b>Fragment Length</b> Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                |
| 0849 | 2121 | Incorrect Amount<br>of Data Received      | DNP[MCU] | Extended | The application layer detected an inconsistency in the amount of data in the fragment. The fragment was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Reported Length</b> Data2 Type: ushort<br>Data 3: <b>Actual Length</b> Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                        |
| 084A | 2122 | Fragment Timed<br>Out on Transmit<br>List | DNP[MCU] | Extended | The fragment was removed from the application layer transmit list after an extended period of inactivity. This will normally only occur if the transport function and data link layer are unable to service transmit requests.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Application Control</b> Data3 Type: DNPApControl<br>Data 4: <b>Function Code</b> Data4 Type: DNPAppFunctionCode |
| 084B | 2123 | App Layer<br>Accepted Good<br>Fragment    | DNP[MCU] | All      | The application layer successfully accepted a complete fragment from the transport function.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Data Length</b> Data2 Type: ushort<br>Data 3: <b>Application Control</b> Data3 Type: DNPApControl<br>Data 4: <b>Function Code</b> Data4 Type: DNPTranspFunctionCode                                                                                                                                            |
| 084C | 2124 | Peer Device<br>Buffer Full                | DNP[MCU] | Extended | A peer device was unable to be added to the peer device list due to the buffer being full.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                        |
| 084D | 2125 | Peer Device<br>Already on List            | DNP[MCU] | Extended | Addition of the peer device to the list was unsuccessful because the device is already on the list.                                                                                                                                                                                                                                                                                                                                                                                   |

|      |      |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                             |
|------|------|-----------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                   |          |          | Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                           |
| 084E | 2126 | Peer Device Removed From List     | DNP[MCU] | Extended | The peer device was successfully removed from the peer device list.<br><br>Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Connection ID</b> Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                      |
| 084F | 2127 | Peer Device Added to List         | DNP[MCU] | Extended | The peer device was successfully added to the peer device list.<br><br>Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Connection ID</b> Data2 Type: ConnectionID<br>Data 3: <b>Port Code</b> Data3 Type: PortCode<br>Data 4: Master Number Data4 Type: Master                                                                                                         |
| 0850 | 2128 | FIR/FIN Not Set                   | DNP[MCU] | Extended | The application layer found that the FIR and FIN bits of the Application Control byte were not set. The fragment was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Application Control</b> Data3 Type: DNPAppControl<br>Data 4: Debug Data Data4 Type: ushort                           |
| 0851 | 2129 | Sequence Number Mismatch          | DNP[MCU] | Extended | The application layer found that the sequence number in the Application Control byte was inconsistent with what was expected. The fragment was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Application Control</b> Data3 Type: DNPAppControl<br>Data 4: Debug Data Data4 Type: ushort |
| 0852 | 2130 | Transient Peer Dev Addition Issue | DNP[MCU] | Extended | The source of this fragment was unknown so an attempt was made to add it to the peer device list. The attempt was unsuccessful so the fragment was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Application Control</b> Data2 Type: DNPAppControl<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                 |
| 0853 | 2131 | No Peer Record Found During Xmit  | DNP[MCU] | Extended | A transmit was attempted to a device that was not found on the peer device list. The transmit was aborted.<br><br>Data 1: Code Location Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                       |
| 0854 | 2132 | URBE Registration Buffer Full     | DNP[MCU] | Extended | The buffer containing callback functions for unsolicited messages was full when attempting to add another function.<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                 |
| 0855 | 2133 | Peer Device Not on List           | DNP[MCU] | Extended | The requested peer device was not found on the peer device list when attempting to remove the device from the list.                                                                                                                                                                                                                                                                         |

## Definitions of Historic Events

|      |      |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|------|-----------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                   |          |          | Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                                                                                                                                   |
| 0856 | 2134 | Initial Unsolicited Msg Confirmed | DNP[MCU] | Extended | Indicates that a confirmation message was received for the unsolicited null messages that must be sent on power up.<br><br>Data 1: <b>Callback Status</b> Data1 Type: CallbackStatus<br>Data 2: RTU Address Data2 Type: RTUAddress<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                |
| 0857 | 2135 | URBE Enabled Via SCADA            | DNP[MCU] | Extended | Unsolicited Report by Exception processing was enabled over SCADA.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>URBE Status</b> Data2 Type: URBEStatus<br>Data 3: Active URBE Class Mask Data3 Type: ActiveURBEClassMask<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                      |
| 0858 | 2136 | URBE Disabled Via SCADA           | DNP[MCU] | Extended | Unsolicited Report by Exception processing was disabled over SCADA.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>URBE Status</b> Data2 Type: URBEStatus<br>Data 3: Active URBE Class Mask Data3 Type: ActiveURBEClassMask<br>Data 4: Debug Data Data4 Type: ushort                                                                                                                     |
| 0859 | 2137 | Port Code Invalid                 | DNP[MCU] | Extended | An invalid port code was detected when attempting to add a peer device to the peer device list.<br><br>Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Invalid Port Code value</b> Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                        |
| 085A | 2138 | Cold Restart Requested            | EVT[MCU] | Normal   | A cold restart of the control has been requested over SCADA, and will be performed in two seconds.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                       |
| 085B | 2139 | Function Code Not Implemented     | DNP[MCU] | Extended | The application layer received a message containing a DNP function code that is invalid or is not implemented.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Function Code</b> Data3 Type: DNPAppFunctionCode<br>Data 4: Debug Data Data4 Type: ushort                                                                     |
| 085C | 2140 | Unknown Master Access Restricted  | DNP[MCU] | Extended | A device that was previously unknown has requested an action that is restricted to configured master stations. The restricted actions are writes, select/operate and cold restart.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Function Code</b> Data3 Type: DNPAppFunctionCode<br>Data 4: Debug Data Data4 Type: ushort |

|      |      |                                    |          |          |                                                                                                                                                                                                                                                                                                      |
|------|------|------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 085D | 2141 | Peer Device Modified on List       | DNP[MCU] | Extended | The peer device was successfully modified on the peer device list.<br>Data 1: <b>Peer RTU Address</b> Data1 Type: RTUAddress<br>Data 2: Code Location Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Master Number Data4 Type: ushort                                        |
| 085E | 2142 | Request time synch received        | DNP[MCU] | All      | A response was received with the need-time IIN set and a time sync is being attempted.<br>Data 1: <b>Status</b> Data1 Type: EVTboolean<br>Data 2: <b>Source Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Address</b> Data3 Type: RTUAddress<br>Data 4: Debug Data Data4 Type: ushort |
| 085F | 2143 | P2P Bad transmit fragment length   | DNP[MCU] | All      | Data 1: <b>Length of Fragment</b> Data1 Type: ushort<br>Data 2: Debug text Data2 Type: ushort<br>Data 3: Debug text Data3 Type: ushort<br>Data 4: Debug text Data4 Type: ushort                                                                                                                      |
| 0860 | 2144 | P2P Transmit fragment buffer full  | DNP[MCU] | Normal   |                                                                                                                                                                                                                                                                                                      |
| 0861 | 2145 | P2P No peer device record          | DNP[MCU] | All      | Data 1: <b>Destination Address</b> Data1 Type: ushort                                                                                                                                                                                                                                                |
| 0862 | 2146 | P2P Fragment declined by transport | DNP[MCU] | Extended | Data 1: <b>Result Code</b> Data1 Type: ushort<br>Data 2: <b>Destination Address/Code</b> Data2 Type: ushort<br>Data 3: <b>Fragment Length</b> Data3 Type: ushort<br>Data 4: <b>Code Location</b> Data4 Type: ushort                                                                                  |
| 0863 | 2147 | P2P No peer for received fragment  | DNP[MCU] | All      | Data 1: <b>Peer Address</b> Data1 Type: ushort                                                                                                                                                                                                                                                       |
| 0864 | 2148 | P2P Application layer CRC error    | DNP[MCU] | All      | Data 1: <b>Source Address</b> Data1 Type: ushort<br>Data 2: <b>Local Address</b> Data2 Type: ushort<br>Data 3: <b>Expected Sequence Number</b> Data3 Type: ushort                                                                                                                                    |
| 0865 | 2149 | P2P App layer sequence error       | DNP[MCU] | Extended | Data 1: <b>Source Address</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort<br>Data 3: <b>Expected sequence number</b> Data3 Type: ushort<br>Data 4: <b>Received sequence number</b> Data4 Type: ushort                                                                      |
| 0866 | 2150 | P2P Unknown peer access restricted | DNP[MCU] | Extended | Data 1: <b>Local Peer Addr</b> Data1 Type: ushort<br>Data 2: <b>Source Peer Addr</b> Data2 Type: ushort<br>Data 3: <b>Requested Function</b> Data3 Type: ushort<br>Data 4: <b>Connection ID</b> Data4 Type: ushort                                                                                   |
| 0867 | 2151 | P2P Error block received from peer | DNP[MCU] | Normal   | Data 1: <b>Source Addr</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort                                                                                                                                                                                                     |

## Definitions of Historic Events

|      |      |                                    |          |          |                                                                                                                                                                                                                    |
|------|------|------------------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                    |          |          | Data 3: <b>Errant Object</b> Data3 Type: ushort<br>Data 4: <b>Errant Code</b> Data4 Type: ushort                                                                                                                   |
| 0868 | 2152 | P2P Function code not implemented  | DNP[MCU] | All      | Data 1: <b>Local Peer Addr</b> Data1 Type: ushort<br>Data 2: <b>Source Peer Addr</b> Data2 Type: ushort<br>Data 3: <b>Requested Function</b> Data3 Type: ushort<br>Data 4: <b>Connection ID</b> Data4 Type: ushort |
| 0869 | 2153 | P2P Peer not P2P compatible        | DNP[MCU] | All      | Data 1: <b>Destination Address</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort                                                                                                           |
| 086A | 2154 | P2P Protocol not recognized        | DNP[MCU] | All      | Data 1: <b>Protocol Type</b> Data1 Type: ushort                                                                                                                                                                    |
| 086B | 2155 | P2P Error found in response data   | DNP[MCU] | Extended | Data 1: <b>Source Address</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort<br>Data 3: <b>Errant Object</b> Data3 Type: ushort<br>Data 4: <b>Errant Code</b> Data4 Type: ushort            |
| 086C | 2156 | Association reset link sent        | DNP[MCU] | All      | Data 1: <b>Source Addr</b> Data1 Type: ushort<br>Data 2: <b>Destination Addr</b> Data2 Type: ushort<br>Data 3: <b>Port ID</b> Data3 Type: ushort                                                                   |
| 086D | 2157 | Association reset link send failed | DNP[MCU] | Extended | Data 1: <b>Source Addr</b> Data1 Type: ushort<br>Data 2: <b>Destination Addr</b> Data2 Type: ushort<br>Data 3: <b>Port ID</b> Data3 Type: ushort                                                                   |
| 086E | 2158 | Association reset link ack rcvd    | DNP[MCU] | All      | Data 1: <b>Peer Addr</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort                                                                                                                     |
| 086F | 2159 | P2P Association test sent          | DNP[MCU] | All      | Data 1: <b>Destination Addr</b> Data1 Type: ushort                                                                                                                                                                 |
| 0870 | 2160 | P2P Association test unsuccessful  | DNP[MCU] | Extended | Data 1: <b>Destination Addr</b> Data1 Type: ushort                                                                                                                                                                 |
| 0871 | 2161 | P2P Association test response rcvd | DNP[MCU] | All      | Data 1: <b>Peer Device Address</b> Data1 Type: ushort<br>Data 2: <b>P2P Support Flag</b> Data2 Type: ushort<br>Data 3: <b>MTU Size</b> Data3 Type: ushort                                                          |
| 0872 | 2162 | P2P Support query received         | DNP[MCU] | All      | Data 1: <b>Source Address</b> Data1 Type: ushort                                                                                                                                                                   |
| 0873 | 2163 | P2P Reset Association frame sent   | DNP[MCU] | All      | Data 1: <b>Peer Device Address</b> Data1 Type: ushort                                                                                                                                                              |
| 0874 | 2164 | Association negotiation incomplete | DNP[MCU] | Extended | Data 1: <b>Destination Address</b> Data1 Type: ushort<br>Data 2: <b>Association State</b> Data2 Type: ushort                                                                                                       |

|      |      |                                  |          |          |                                                                                                                                                                                                                                                                                                                                                                                                            |
|------|------|----------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0875 | 2165 | P2P Xmt temporarily suspended    | DNP[MCU] | All      | Data 1: <b>Destination Addr</b> Data1 Type: ushort<br>Data 2: <b>Connection ID</b> Data2 Type: ushort<br>Data 3: <b>Suspend Countdown Timer Value</b> Data3 Type: ushort                                                                                                                                                                                                                                   |
| 0876 | 2166 | P2P App layer fragment xmit      | DNP[MCU] | All      | Data 1: <b>Transmit Result Code</b> Data1 Type: ushort<br>Data 2: <b>Destination Addr</b> Data2 Type: ushort<br>Data 3: <b>Port ID</b> Data3 Type: ushort<br>Data 4: <b>Fragment Length</b> Data4 Type: ushort                                                                                                                                                                                             |
| 0877 | 2167 | Local/Remote Callback Registered | DNP[MCU] | Normal   |                                                                                                                                                                                                                                                                                                                                                                                                            |
| 0880 | 2176 | Special Function Buffer Full     | DNP[MCU] | Extended | An attempt by the application to register a special memory read/write function was rejected because the buffer was full.<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                                                                           |
| 0881 | 2177 | Special Function Already on List | DNP[MCU] | Extended | An attempt by the application to register a special memory read/write function was rejected because a special function for that memory location already exists in the buffer.<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                      |
| 0882 | 2178 | Error in Object Parse            | DNP[MCU] | Extended | The header or data portion of an object that was returned in a response message was invalid or otherwise unexpected. If possible other objects within the response will still be processed.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>Source Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Address</b> Data3 Type: RTUAddress<br>Data 4: Data4 Type: ushort |
| 0883 | 2179 | Object Variation Error           | DNP[MCU] | Extended | The variation of the object that was returned in the response message is invalid or unsupported.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>Source Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Address</b> Data3 Type: RTUAddress<br>Data 4: <b>Variation</b> Data4 Type: DNPObjectVariation                                                               |
| 0884 | 2180 | Object Qualifier Error           | DNP[MCU] | Extended | The qualifier code of the object that was returned in the response message is invalid or unsupported.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>Source Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Address</b> Data3 Type: RTUAddress<br>Data 4: <b>Invalid Qualifier/ Index code</b> Data4 Type: ushort                                                  |
| 0885 | 2181 | Parsed Data Buffer Full          | DNP[MCU] | Extended | The data buffer containing the parsed object data is full. No further parsing of this response message will take place.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>Source Address</b> Data2 Type: RTUAddress                                                                                                                                                                |

## Definitions of Historic Events

|      |      |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------|------|------------------------------------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                    |          |          | Data 3: <b>Destination Address</b> Data3 Type: RTUAddress<br>Data 4: <b>Variation</b> Data4 Type: DNPObjectVariation                                                                                                                                                                                                                                                                                                |
| 0886 | 2182 | Object Header Error                | DNP[MCU] | Extended | An error was detected in the object header of the DNP message.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Object Type</b> Data3 Type: DNPObjectType<br>Data 4: <b>Variation</b> Data4 Type: DNPObjectVariation                                                                                                          |
| 0887 | 2183 | Error Assembling Object Header     | DNP[MCU] | Extended | An error was detected in the object header during assembly of a response message. The response process was aborted.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Object Type</b> Data3 Type: DNPObjectType<br>Data 4: <b>Variation</b> Data4 Type: DNPObjectVariation                                                     |
| 0888 | 2184 | Invalid Object Range Index         | DNP[MCU] | Extended | An error was detected in an object header of the current request message related to the data index values. An attempt will be made to process other objects within the message.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>First Index or Index Size</b> Data2 Type: ushort<br>Data 3: <b>Last Index or Qualifier</b> Data3 Type: ushort<br>Data 4: Code Location Data4 Type: ushort |
| 0889 | 2185 | Fragment Data Size Error           | DNP[MCU] | Extended | The amount of data available in the fragment was not consistent with the expected amount of data. The fragment was discarded.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Data Length</b> Data2 Type: ushort<br>Data 3: <b>Data Index</b> Data3 Type: ushort<br>Data 4: Code Location Data4 Type: ushort                                                                              |
| 088A | 2186 | Object/Variation Not Supported     | DNP[MCU] | Extended | The object being processed does not include a support object and variation combination. An attempt will be made to continue parsing other objects within the message.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Object Type</b> Data2 Type: DNPObjectType<br>Data 3: <b>Variation</b> Data3 Type: DNPObjectVariation<br>Data 4: Code Location Data4 Type: ushort                    |
| 088B | 2187 | Special Function Registered        | DNP[MCU] | Extended | A special function related to a specific memory action and virtual memory address was successfully added to the list.<br><br>Data 1: <b>VMFunctionCode</b> Data1 Type: VMFunctionCode<br>Data 2: <b>Memory Address</b> Data2 Type: VAddr16<br>Data 3: Debug Data Data3 Type: VAddr16<br>Data 4: Debug Data Data4 Type: ushort                                                                                       |
| 088C | 2188 | Virtual Memory Read or Write Error | DNP[MCU] | Extended | A request to read or write virtual memory addresses was unsuccessful.<br><br>Data 1: <b>Source Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Memory Address</b> Data2 Type: VAddr16<br>Data 3: Result Code returned by OS Data3 Type: ushort<br>Data 4: <b>Action</b> Data4 Type: VMAccessAction                                                                                                                 |
| 088D | 2189 | SBO Select Timer Unavailable       | DNP[MCU] | Extended | An internal timer was not available to perform the select-before-operate timing function. The operation request was aborted.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: Debug Data Data2 Type: ushort                                                                                                                                                                                   |

|      |      |                                    |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------|------|------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                    |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                                                                                                         |
| 088E | 2190 | SBO Select Timer Error             | DNP[MCU] | Extended | An error was detected when attempting to initialize a select-before-operate timer. The operation request was aborted.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>SBO Timer Value</b> Data2 Type: SBOTimerValue<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                        |
| 088F | 2191 | Issue With Output Block            | DNP[MCU] | All      | An operation request was unsuccessful due to an issue in the Control Relay Output Block of the message. See DNP documentation for a complete list of DNP Output Block status codes.<br><br>Data 1: <b>Object Type</b> Data1 Type: DNPObjectType<br>Data 2: <b>DNP Output Block Status Code</b> Data2 Type: DNPOutputBlockStatusCode<br>Data 3: <b>Point Number</b> Data3 Type: ushort<br>Data 4: <b>Function Code</b> Data4 Type: DNPAppFunctionCode |
| 08A0 | 2208 | Control Point Function Registered  | DNP[MCU] | Extended | A control point special function was successfully added to the list. This function connects a control operation with functionality elsewhere in the application.<br><br>Data 1: <b>Point Code</b> Data1 Type: DNPPointCode<br>Data 2: <b>Associated RTU Address</b> Data2 Type: RTUAddress<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                           |
| 08A1 | 2209 | Control Point Code Not Mapped      | DNP[MCU] | Extended | A control point special function was not added to the list because the control point is not yet included in the point mapping configuration.<br><br>Data 1: <b>Point Code</b> Data1 Type: DNPPointCode<br>Data 2: <b>Associated RTU Address</b> Data2 Type: RTUAddress<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                               |
| 08A2 | 2210 | Change to Point Map Detected       | DNP[MCU] | All      | A configuration change to a point map was detected. This change will be processed 30 seconds after the last change is detected.<br><br>Data 1: <b>Map Number</b> Data1 Type: MapNumber<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                       |
| 08A3 | 2211 | Error in Getting Map Timer         | DNP[MCU] | Extended | An error was detected when attempting to initialize a map-change timer. The operation will be retried.<br><br>Data 1: <b>Map Number</b> Data1 Type: MapNumber<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                |
| 08A4 | 2212 | Point Processing Timer Unavailable | DNP[MCU] | Extended | An internal timer was not available to perform the routing table configuration change timing function. DNP initialization will be aborted.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                       |

## Definitions of Historic Events

|      |      |                                   |          |          |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|------|-----------------------------------|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08A5 | 2213 | Point Map Reinitialized           | DNP[MCU] | Normal   | <p>The point map was successfully reinitialized following completion of changes to the point map configuration.</p> <p>Data 1: <b>Map Number</b> Data1 Type: MapNumber<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                              |
| 08A6 | 2214 | Point Definition Invalid          | DNP[MCU] | Extended | <p>An issue was found in the configuration data of a mapped point. The map will not be initialized until the error is corrected.</p> <p>Data 1: <b>Map Number</b> Data1 Type: MapNumber<br/>           Data 2: <b>Point Index</b> Data2 Type: ushort<br/>           Data 3: <b>Error Data</b> Data3 Type: ushort<br/>           Data 4: Code Location Data4 Type: ushort</p>                                                           |
| 08A7 | 2215 | Input Point Code Not Mapped       | DNP[MCU] | Extended | <p>The application attempted to supply input data for a point that was not included in the configured point mapping.</p> <p>Data 1: <b>Point Type</b> Data1 Type: DNPPointType<br/>           Data 2: <b>Point Code</b> Data2 Type: DNPPointCode<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                         |
| 08A9 | 2217 | Event Buffer Overflow             | DNP[MCU] | Extended | <p>An overflow condition has been reached for the event buffer of the reported point type. The oldest event will be removed to make room for this new event, and the overflow IIN bit will be set.</p> <p>Data 1: <b>DNP Point Type</b> Data1 Type: DNPPointType<br/>           Data 2: Master Number Data2 Type: ushort<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p> |
| 08AA | 2218 | Analog Output Function Registered | DNP[MCU] | Extended | <p>An analog output point special function was successfully added to the list. This function connects an Analog output operation with functionality elsewhere in the application.</p> <p>Data 1: <b>Point Code</b> Data1 Type: DNPPointCode<br/>           Data 2: <b>Associated RTU Address</b> Data2 Type: RTUAddress<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>  |
| 08AB | 2219 | Analog Output Code Not Mapped     | DNP[MCU] | Extended | <p>An analog output point special function was not added to the list because the analog output point is not yet included in the point mapping configuration.</p> <p>Data 1: <b>Point Code</b> Data1 Type: DNPPointCode<br/>           Data 2: <b>Associated RTU Address</b> Data2 Type: RTUAddress<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                       |
| 08AC | 2220 | Map Change Callback Buffer Full   | DNP[MCU] | Extended | <p>A special function to be used to inform the application about map changes was unable to be added to the list. The list was full.</p> <p>Data 1: Debug Data Data1 Type: ushort<br/>           Data 2: Debug Data Data2 Type: ushort<br/>           Data 3: Debug Data Data3 Type: ushort<br/>           Data 4: Debug Data Data4 Type: ushort</p>                                                                                    |
| 08AD | 2221 | Map Change Callback Registered    | DNP[MCU] | Extended | <p>A special function to be used to inform the application about map changes was successfully added to the list.</p> <p>Data 1: Debug Data Data1 Type: ushort<br/>           Data 2: Debug Data Data2 Type: ushort</p>                                                                                                                                                                                                                 |

|      |      |                                           |          |          |                                                                                                                                                                                                                                                                                                                                                                  |
|------|------|-------------------------------------------|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                           |          |          | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                                                                                                                                                                                                     |
| 08C0 | 2240 | Route Processing<br>Timer Unavailable     | DNP[MCU] | Extended | An internal timer was not available to perform the map-change timing function. DNP initialization will be aborted.<br><br>Data 1: <b>Map Number</b> Data1 Type: MapNumber<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                |
| 08C1 | 2241 | Route Entry<br>Invalid                    | DNP[MCU] | Extended | An issue was found with one of the configured route entries. The route table will not be initialized until the issue is corrected.<br><br>Data 1: <b>Route RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Route Table Index</b> Data2 Type: ushort<br>Data 3: <b>Route Entry Error</b> Data3 Type: RouteEntryError<br>Data 4:Debug Data Data4 Type: ushort |
| 08C2 | 2242 | Route Could Not<br>be Added               | DNP[MCU] | Extended | The routing table did not have room for the new route. The route table will not be initialized.<br><br>Data 1: <b>Route RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Route Table Index</b> Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                            |
| 08C3 | 2243 | Route Table<br>Initialized                | DNP[MCU] | Normal   | The route table was successfully initialized with configured routes and routing was enabled.<br><br>Data 1: <b>Count of Routes</b> Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                    |
| 08C4 | 2244 | Route<br>Configuration<br>Change Detected | DNP[MCU] | All      | A configuration change to the routing table was detected. This change will be processed 30 seconds after the last change is detected<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                         |
| 08C5 | 2245 | Error in Route<br>Change Timer            | DNP[MCU] | Extended | An error was detected when attempting to initialize a route table-change timer. The operation will be retried.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                               |
| 08C6 | 2246 | Pass-Through<br>Routing Enabled           | DNP[MCU] | Normal   | A valid pass-through route configuration was found and pass-through routing was enabled.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                     |
| 08C7 | 2247 | Pass-Through<br>Routing Disabled          | DNP[MCU] | Normal   | A valid pass-through route configuration was not found and pass-through routing was disabled.<br><br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort                                                                                                                                                                                |

## Definitions of Historic Events

|      |      |                          |          |        |                                                                                                                                                                                            |
|------|------|--------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                          |          |        | Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                               |
| 08C8 | 2248 | DNP Diag Test Start      | DNP[MCU] | Normal | Data 1: <b>Test Type</b> Data1 Type: DiagTestType<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 08C9 | 2249 | DNP Diag KeepAlive Start | DNP[MCU] | Normal | Data 1: <b>Test Type</b> Data1 Type: DiagTestType<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 08CA | 2250 | DNP Diag Test Ending     | DNP[MCU] | Normal | Data 1: <b>Test Type</b> Data1 Type: DiagTestType<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 08CB | 2251 | DNP Diag KeepAlive End   | DNP[MCU] | Normal | Data 1: <b>Test Type</b> Data1 Type: DiagTestType<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 08CC | 2252 | DNP Diag Ping Timeout    | DNP[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                               |
| 08CD | 2253 | DNPDiag Send Error       | DNP[MCU] | Normal | Data 1: <b>DNP Address</b> Data1 Type: DNPAddress<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                  |
| 08CE | 2254 | DNP Diag Max Peers       | DNP[MCU] | Normal | Data 1: <b>Max Peers When This Occurs</b> Data1 Type: MaxPeersWhen<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 08CF | 2255 | DNP Diag No Peers        | DNP[MCU] | Normal | Data 1: <b>No Peers When This Occurs</b> Data1 Type: NoPeersWhen<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort   |
| 08D0 | 2256 | DNPDiag Test Suspended   | DNP[MCU] | Normal | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                               |

|      |      |                                      |          |          |                                                                                                                                                                                                                                                                          |
|------|------|--------------------------------------|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08D1 | 2257 | DNPDiag Test Resumed                 | DNP[MCU] | Normal   | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                             |
| 08D2 | 2258 | DNPDiag WatchDog Triggered           | DNP[MCU] | Normal   | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                             |
| 08D3 | 2259 | DNP Comm Sys Alarm On                | DNP[MCU] | Normal   | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                             |
| 08D4 | 2260 | DNP Comm Sys Alarm Off               | DNP[MCU] | Normal   | Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort                                                                                                             |
| 08D5 | 2261 | No Diagnostics On Peer. Cannot Test. | DNP[MCU] | All      | Remote Peer does not have diagnostics installed, so tests cannot be performed with it.<br><br>Data 1: <b>DNP Address</b> Data1 Type: DNPAAddress<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ushort |
| 08D6 | 2262 | Switching to Failover Master         | DNP[MCU] | Extended | Switching to Failover Master<br><br>Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3:IP addr second half Data3 Type: Hexushort<br>Data 4:Master Number Data4 Type: ushort                   |
| 08D7 | 2263 | Switching to Master Primary          | DNP[MCU] | Extended | Switching to Master Primary<br><br>Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3:IP addr second half Data3 Type: Hexushort<br>Data 4:Master Number Data4 Type: ushort                    |
| 08D8 | 2264 | Master Wrong IP Addr Cmd Rejected    | DNP[MCU] | Extended | Switching to Master Primary<br><br>Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3:IP addr second half Data3 Type: Hexushort<br>Data 4:Port Code Data4 Type: ushort                        |
| 08D9 | 2265 | Invalid Master Cmd Rejected          | DNP[MCU] | Extended | Switching to Master Primary<br><br>Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3:IP addr second half Data3 Type: Hexushort<br>Data 4:Function Code Data4 Type: Hexushort                 |
| 08DA | 2266 | Master has wrong port type Cmd       | DNP[MCU] | Extended | Switching to Master Primary                                                                                                                                                                                                                                              |

## Definitions of Historic Events

|      |      |                                            |          |          |                                                                                                                                                                                                                                                     |
|------|------|--------------------------------------------|----------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      | Rejected                                   |          |          | Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3: IP addr second half Data3 Type: Hexushort<br>Data 4: Port Code Data4 Type: ushort                                    |
| 08DB | 2267 | Master used reserved addr.<br>Cmd Rejected | DNP[MCU] | Extended | Switching to Master Primary<br><br>Data 1: <b>Master RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>IP addr first half</b> Data2 Type: Hexushort<br>Data 3: IP addr second half Data3 Type: Hexushort<br>Data 4: Port Code Data4 Type: ushort |
| 08DC | 2268 | SCADA Set Date/Time                        | DNP[MCU] | All      | SCADA Set Date/Time<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                         |
| 08DD | 2269 | Recorded Time is 0                         | DNP[MCU] | All      | Recorded Time is 0<br><br>Data 1: Debug Data Data1 Type: ushort<br>Data 2: Debug Data Data2 Type: ushort<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                                          |
| 08DE | 2270 | Cold Restart Command Disabled              | DNP[MCU] | All      | Cold Restart Command Disabled<br><br>Data 1: Debug Data Data1 Type: RTUAddress<br>Data 2: Debug Data Data2 Type: RTUAddress<br>Data 3: Debug Data Data3 Type: ushort<br>Data 4: Debug Data Data4 Type: ushort                                       |
| 0B00 | 2816 | Disk Error                                 | CFM[MCU] | All      | Data 1: Trace Info Data1 Type: ushort<br>Data 2: Error Code Data2 Type: ushort                                                                                                                                                                      |
| 0B01 | 2817 | File Allocation In Progress                | CFM[MCU] | Normal   |                                                                                                                                                                                                                                                     |
| 0B02 | 2818 | File Allocation Not In Progress            | CFM[MCU] | Normal   |                                                                                                                                                                                                                                                     |
| 0B03 | 2819 | File Allocation Issue                      | CFM[MCU] | All      | Data 1: Trace Info Data1 Type: ushort<br>Data 2: Error Code Data2 Type: ushort                                                                                                                                                                      |
| 0B04 | 2820 | Compact Flash Card Not Found               | CFM[MCU] | Extended | Data 1: Debug Info (Card State) Data1 Type: ushort                                                                                                                                                                                                  |
| 0B05 | 2821 | Disk Check Issue                           | CFM[MCU] | All      | Data 1: Error Code Data1 Type: ushort                                                                                                                                                                                                               |
| 0B06 | 2822 | Set Bad Disk Condition to On               | CFM[MCU] | Normal   |                                                                                                                                                                                                                                                     |
| 0B07 | 2823 | Set Bad Disk Condition to Off              | CFM[MCU] | Normal   |                                                                                                                                                                                                                                                     |
| 0B08 | 2824 | Allocated File Size Exceeded               | CFM[MCU] | All      | Data 1: File Class Data1 Type: ushort<br>Data 2: <b>Allocated Size (kB)</b> Data2 Type: ushort<br>Data 3: <b>Written Size (kB)</b> Data3 Type: ushort                                                                                               |

|      |      |                                          |          |        |                                                                                                                                                                                     |
|------|------|------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0B09 | 2825 | Shutdown Processing CFM                  | CFM[MCU] | Normal | Data 1: Trace Info Data1 Type: ushort                                                                                                                                               |
| 0B0A | 2826 | CF Disk Was Tampered With                | CFM[MCU] | Normal | Directory Contents Corruption Was Detected on Startup.                                                                                                                              |
| 0B0B | 2827 | CF Disk Tampered Indication Cleared      | CFM[MCU] | Normal | Directory Contents Corruption Was Detected on Startup.                                                                                                                              |
| 0E01 | 3585 | Xfer Trip PR Initiated (DG POI) Active   | DAT[MCU] | Normal | Xfer Trip PR Initiated (DG POI) Active<br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                      |
| 0E02 | 3586 | Xfer Trip PR Initiated (DG POI) Inactive | DAT[MCU] | Normal | Xfer Trip PR Initiated (DG POI) Inactive<br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                    |
| 0E03 | 3587 | Transfer Trip Sent Active                | DAT[MCU] | Normal | Transfer Trip Sent Active<br>Data 1: Data1 Type: RTUAddress<br>Data 2: Data2 Type: SWPos<br>Data 3: Data3 Type: RTUAddress<br>Data 4: Data4 Type: ushort                            |
| 0E04 | 3588 | Transfer Trip Sent Inactive              | DAT[MCU] | Normal | Transfer Trip Sent Inactive<br>Data 1: Data1 Type: RTUAddress<br>Data 2: Data2 Type: SWPos<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                              |
| 0E05 | 3589 | DG Reconnect Disqualified On Fault       | DAT[MCU] | Normal | DG Reconnect Disqualified On Fault<br>Data 1: Data1 Type: TeamNumberWithUnknown<br>Data 2: Data2 Type: BooleanTrueFalse<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 0E06 | 3590 | Sw1 Auto Manl Op. Clear Timer Stopped    | DAT[MCU] | Normal | Sw1 Auto Manual Operation Clearing Timer Stopped<br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort            |
| 0E07 | 3591 | Sw2 Auto Manl Op. Clear Timer Stopped    | DAT[MCU] | Normal | Sw2 Auto Manual Operation Clearing Timer Stopped<br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort            |
| 0E08 | 3592 | Sw2 Auto Manl Op. Clear Timer Started    | DAT[MCU] | Normal | Sw2 Auto Manual Operation Clearing Timer Started<br>Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort            |

## Definitions of Historic Events

|      |      |                               |          |        |                                                                                                                                      |
|------|------|-------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| 1201 | 4609 | Originating a SRC Runner      | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1202 | 4610 | Received Old Runner           | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1203 | 4611 | Received Duplicate Runner     | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1204 | 4612 | Received New Runner           | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1205 | 4613 | Forwarding a Received Runner  | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1206 | 4614 | Originating an Endload Runner | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1207 | 4615 | COS Cleared                   | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1208 | 4616 | Team Config Netlist Mismatch  | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1209 | 4617 | COS Active                    | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 120A | 4618 | Missing Runners               | NET[MCU] | Normal | Data 1: <b>This state provides a user programmable time delay</b>                                                                    |

|      |      |                                   |          |        |                                                                                                                                                                                                                                                                |
|------|------|-----------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                   |          |        | <b>before starting the runners repeated after each successful round of collection + distribution</b> Data1 Type: StatusFeedbackArea<br>Data 2: <b>Runner's Quantity</b> Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 120B | 4619 | All Runners Received              | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 120C | 4620 | NETLIST no alt source found       | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 120D | 4621 | NETLIST alt source result         | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 120E | 4622 | Building COS Runner               | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 120F | 4623 | COS Reported by IT                | NET[MCU] | All    | Data 1: <b>Local Load COS</b> Data1 Type: ushort<br>Data 2: <b>Average Load</b> Data2 Type: ushort<br>Data 3: <b>3-Phase Average Load</b> Data3 Type: ushort<br>Data 4: <b>Team Member Number</b> Data4 Type: TeamRecord                                       |
| 1210 | 4624 | COS Received in Runner            | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 1211 | 4625 | Forwarding Dup. COS Runner        | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 1212 | 4626 | Loc Netlist Old. Need it From RTU | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                           |
| 1213 | 4627 | New Netlist Request From RTU      | NET[MCU] | All    | Data 1:Null Data1 Type: ushort                                                                                                                                                                                                                                 |

## Definitions of Historic Events

|      |      |                                         |          |        |                                                                                                                                            |
|------|------|-----------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                         |          |        | Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                         |
| 1214 | 4628 | Netlist Record Sent                     | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1215 | 4629 | Netlist Record Received                 | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1216 | 4630 | ITII Mode is Active                     | NET[MCU] | Normal | Data 1:Instance Data1 Type: Instance<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1217 | 4631 | ITII Mode is Inactive                   | NET[MCU] | Normal | Data 1:Instance Data1 Type: Instance<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 1218 | 4632 | NET: Missing Runners in Adj Net Active  | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1219 | 4633 | NET: Missing Runners Adj Net Inactive   | NET[MCU] | All    | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1220 | 4640 | NETX Adj data delivery runner timeout   | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1221 | 4641 | NETX Adj data delivery runner initiated | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |
| 1222 | 4642 | NETX Indiv Adj Data Runner Path Timeout | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort       |

|      |      |                                         |          |        |                                                                                                                                                                                                                                                                                              |
|------|------|-----------------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1223 | 4643 | NETX Indiv Adj Data Runner Path Present | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                         |
| 1241 | 4673 | NETV: Netlist Changed                   | NET[MCU] | Normal | Data 1: <b>Netview number of devices/switches in DivisionNet</b> Data1 Type: NumOfDevices<br>Data 2: <b>Number of entries in the D-W (Device-Wire) tables</b> Data2 Type: NumOfWirePairs<br>Data 3: <b>Number of Teams</b> Data3 Type: NumOfTeams<br>Data 4:Null Data4 Type: ushort          |
| 1242 | 4674 | NETV: Network Config. Changed           | NET[MCU] | Normal | Data 1: <b>Number of rows in table for DivisionNet</b> Data1 Type: NumOfRows<br>Data 2: <b>Number of power sources in DivisionNet</b> Data2 Type: NumOfPowSrc<br>Data 3: <b>Net View Analyzer</b> Data3 Type: NetViewAnalyzer<br>Data 4:Number is there for debugging use Data4 Type: ushort |
| 1250 | 4688 | NETX dispatch initiated                 | NET[MCU] | Normal | Data 1: <b>Net Object Type</b> Data1 Type: RunnerType<br>Data 2: <b>Source RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Source Node ID</b> Data3 Type: SrcNodeID<br>Data 4: <b>Destination Node ID</b> Data4 Type: DestNodeID                                                        |
| 1251 | 4689 | NETX EPD netlist received               | NET[MCU] | Normal | Data 1: <b>Net Object ID</b> Data1 Type: ObjID<br>Data 2: <b>Size of the arriving object in bytes, also a flag/signal of arrival to State machine A</b> Data2 Type: SizeOfObject<br>Data 3: <b>Net Object Length</b> Data3 Type: ObjectLength<br>Data 4: <b>Bufsiz</b> Data4 Type: bufsiz    |
| 1252 | 4690 | NETX Net list trouble                   | NET[MCU] | Normal | Data 1: <b>Net Object ID</b> Data1 Type: ObjID<br>Data 2: <b>Size of the arriving object in bytes, also a flag/signal of arrival to State machine A</b> Data2 Type: SizeOfObject<br>Data 3: <b>Net Object Length</b> Data3 Type: ObjectLength<br>Data 4: <b>Bufsiz</b> Data4 Type: bufsiz    |
| 1253 | 4691 | NETX bad runner index                   | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                    |
| 1254 | 4692 | NETX node index not found               | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Node Index</b> Data3 Type: NodeIndex<br>Data 4: <b>Net Object Type</b> Data4 Type: RunnerType                                                            |
| 1255 | 4693 | NETX bad object data length             | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress                                                                                                                                                                                                                                     |

## Definitions of Historic Events

|      |      |                                          |          |        |                                                                                                                                                                                                                                                                                                   |
|------|------|------------------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                          |          |        | Data 2: <b>Net Object Length</b> Data2 Type: ObjectLength<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4: <b>Net Object Type</b> Data4 Type: RunnerType                                                                                                                           |
| 1256 | 4694 | NETX new netlist delivery                | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>Size of runner in RTU addresses</b> Data4 Type: RTUAddress                                           |
| 1257 | 4695 | NETX chk for comm chk runner's passing   | NET[MCU] | Normal | NETX check for communication check runner's passing<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>Feeder Net ID</b> Data4 Type: FeederNetID |
| 1258 | 4696 | NETX chk for comm chk runner's return    | NET[MCU] | Normal | NETX check for communication check runner's return<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>Feeder Net ID</b> Data4 Type: FeederNetID  |
| 1259 | 4697 | NETX initiate communication check runner | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                              |
| 125A | 4698 | NEX communication check runner's timeout | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                              |
| 125B | 4699 | NETX communication check runner complete | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                              |
| 125C | 4700 | NETX activation runner return            | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>Size of runner in RTU addresses</b> Data4 Type: RTUAddress                                           |
| 125D | 4701 | NETX activation of the runner's passing  | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>Size of runner in RTU addresses</b> Data4 Type: RTUAddress                                           |
| 125E | 4702 | NETX activation of runner's initiation   | NET[MCU] | Normal | Data 1: <b>RETV:AT EPD Launch all the Activation Runners to</b>                                                                                                                                                                                                                                   |

|      |      |                                         |          |        |                                                                                                                                                                                                                                      |
|------|------|-----------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                         |          |        | the next RTU in line Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                        |
| 125F | 4703 | NETX activation of runner is complete   | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                 |
| 1260 | 4704 | NETX activation of runner's timeout     | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                 |
| 1261 | 4705 | NETX collection runner return           | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>FeederNetID</b> Data4 Type: FeederNetID |
| 1262 | 4706 | NETX collection runner's passing        | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>FeederNetID</b> Data4 Type: FeederNetID |
| 1263 | 4707 | NETX collection as the runner initiates | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                 |
| 1264 | 4708 | NETX collection of runner's timeout     | NET[MCU] | Normal | Data 1: <b>RETV:AT EPD Launch all the Activation Runners to the next RTU in line</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                        |
| 1265 | 4709 | NETX data delivery runner's return      | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>FeederNetID</b> Data4 Type: FeederNetID |
| 1266 | 4710 | NETX data delivery of runner's passing  | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4: <b>FeederNetID</b> Data4 Type: FeederNetID |
| 1267 | 4711 | NETX data delivery runner is initiated  | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort                                                                                                                                                                     |

## Definitions of Historic Events

|      |      |                                                |          |        |                                                                                                                                                                                                                                                                                            |
|------|------|------------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                                |          |        | Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                                           |
| 1268 | 4712 | NETX data delivery of runner's timeout         | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                       |
| 1269 | 4713 | NETX Feeder Net delivery to initiate runner    | NET[MCU] | Normal | NETX Feeder Net delivery to initiate runner<br><br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                    |
| 126A | 4714 | NETX Feeder Net runner delivery complete       | NET[MCU] | Normal | >NETX Feeder Net delivery of runner is complete<br><br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                |
| 126B | 4715 | NETX Feeder Net delivery runner's timeout      | NET[MCU] | Normal | NETX Feeder Net delivery runner's timeout<br><br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                      |
| 126C | 4716 | NETX data runner's cycle is complete           | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                       |
| 126D | 4717 | NETX continue adjacent distributors            | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination Node ID</b> Data2 Type: DestNodeID<br>Data 3: <b>Runner Number</b> Data3 Type: RunnerNumber<br>Data 4:Null Data4 Type: ushort                                                                           |
| 126E | 4718 | NETX initiate adjacent Feeder Net distributors | NET[MCU] | Normal | NETX initiate adjacent Feeder Net distributors<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: <b>Net Object Length</b> Data4 Type: ObjectLength |
| 126F | 4719 | NETX initiate adjacent data block reporter     | NET[MCU] | Normal | NETX initiate adjacent data block reporter<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: <b>Net Object Length</b> Data4 Type: ObjectLength     |
| 1270 | 4720 | NETX forward adjacent data block reporter      | NET[MCU] | Normal | NETX forward adjacent data block reporter<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: <b>Net Object Length</b> Data4 Type: ObjectLength      |

|      |      |                                       |          |        |                                                                                                                                                                                                                                     |
|------|------|---------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1271 | 4721 | NETX sync net list to DAT delayed     | NET[MCU] | Normal | Data 1: <b>SyncStat</b> Data1 Type: syncstat<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                  |
| 1272 | 4722 | NETX sync net list to DAT is not good | NET[MCU] | Normal | Data 1: <b>SyncStat</b> Data1 Type: syncstat<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                  |
| 1273 | 4723 | NETX netlist copy request             | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net object ID</b> Data2 Type: ObjID<br>Data 3: <b>Feeder Net ID</b> Data3 Type: FeederNetID<br>Data 4: <b>Feeder Net CRC</b> Data4 Type: FeederNetCRC        |
| 1274 | 4724 | NETX netlist copy response            | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Feeder Net ID</b> Data3 Type: FeederNetID<br>Data 4: <b>Feeder Net CRC</b> Data4 Type: FeederNetCRC        |
| 1275 | 4725 | NETX Feeder Net ID and CRC mismatch   | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4: <b>Net Object Type</b> Data4 Type: RunnerType |
| 1276 | 4726 | NETX netlist reporter returned        | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: <b>Object Length</b> Data4 Type: ObjectLength    |
| 1277 | 4727 | NETX forward net list reporter        | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: <b>Object Length</b> Data4 Type: ObjectLength    |
| 1278 | 4728 | NETX net list copy initiate           | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                  |
| 1279 | 4729 | NETX report adj netlist distributors  | NET[MCU] | Normal | NETX report adjacent netlist distributors<br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                   |
| 127A | 4730 | NETX report adjacent data block       | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort                                                                                                                                                                                                      |

## Definitions of Historic Events

|      |      |                                  |          |        |                                                                                                                                                                                                                                                                                                  |
|------|------|----------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                  |          |        | Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                               |
| 1280 | 4736 | Configuration is in progress     | NET[MCU] | Normal | Data 1: <b>Instance</b> Data1 Type: Instance<br>Data 2: <b>Source RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4: <b>Feeder Net ID</b> Data4 Type: FeederNetID                                                                       |
| 1281 | 4737 | Configuration is not in progress | NET[MCU] | Normal | Data 1: <b>Previous State</b> Data1 Type: StatusFeedbackArea<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                 |
| 1283 | 4739 | Settings Accepted                | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                             |
| 1284 | 4740 | Settings Received                | NET[MCU] | Normal | If Data 4 reads 10 then Data 4 = Net Object State Revived Command<br><br>Data 1: <b>Net View number of devices in DivisionNet</b> Data1 Type: ushort<br>Data 2: <b>Error Code 1</b> Data2 Type: Hexushort<br>Data 3: <b>Error Code 2</b> Data3 Type: Hexushort<br>Data 4:Null Data4 Type: ushort |
| 1285 | 4741 | Netlist Propagation Enabled      | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                             |
| 1286 | 4742 | Netlist Propagation Disabled     | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                             |
| 1290 | 4752 | Netlist Loaded From BMM          | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                             |
| 1291 | 4753 | Netlist BMM Load Issue           | NET[MCU] | Normal | Data Field 1 could be the BMM_Result in which case please refer to the "BMMRESULT" DataType<br><br>Data 1: <b>Bmm_State</b> Data1 Type: BMMSTATE<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                           |
| 1292 | 4754 | Netlist Saved To BMM             | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort                                                                                                                                                                                                                                                                   |

|      |      |                                         |          |        |                                                                                                                                                                                                                                                                                                |
|------|------|-----------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                         |          |        | Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                             |
| 1293 | 4755 | Netlist BMM Save Issue                  | NET[MCU] | Normal | Data Field 1 could be the BMM_Result in which case please refer to the "BMMRESULT" DataType<br><br>Data 1: <b>Bmm_State</b> Data1 Type: BMMSTATE<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                         |
| 1294 | 4756 | Netlist Was Erased                      | NET[MCU] | Normal | <br>Data 1:Debug Data Data1 Type: ushort                                                                                                                                                                                                                                                       |
| 12A0 | 4768 | NETO buffer pool initialized            | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                           |
| 12A1 | 4769 | NETO combined buffers                   | NET[MCU] | Normal | Data 1: <b>Loop Count</b> Data1 Type: ushort<br>Data 2: <b>Del Count</b> Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                |
| 12A2 | 4770 | NETO buffer pool length is bad          | NET[MCU] | Normal | Data 1: <b>Total Length</b> Data1 Type: totallen<br>Data 2: <b>Pool Size</b> Data2 Type: ushort<br>Data 3: <b>Cumulative Free Buffer Space</b> Data3 Type: netobuffFree<br>Data 4: <b>Loop Count</b> Data4 Type: ushort                                                                        |
| 12A3 | 4771 | NETO does not enough space to store obj | NET[MCU] | Normal | NETO does not have enough space to store object<br><br>Data 1: <b>Net Fragment ID</b> Data1 Type: netfragID<br>Data 2: <b>Source Net ID</b> Data2 Type: SrcNodeID<br>Data 3: <b>Cumulative Free Buffer Space</b> Data3 Type: netobuffFree<br>Data 4: <b>Data Length</b> Data4 Type: DataLength |
| 12A4 | 4772 | NETO object buffering is full           | NET[MCU] | Normal | Data 1: <b>Net Fragment ID</b> Data1 Type: netfragID<br>Data 2: <b>Source Net ID</b> Data2 Type: SrcNodeID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                 |
| 12A5 | 4773 | NETO bad store request                  | NET[MCU] | Normal | Data 1: <b>Net Fragment ID</b> Data1 Type: netfragID<br>Data 2: <b>Source Net ID</b> Data2 Type: SrcNodeID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                 |
| 12A6 | 4774 | NETO data buffer is full                | NET[MCU] | Normal | Data 1: <b>Net Fragment ID</b> Data1 Type: netfragID<br>Data 2: <b>Source Net ID</b> Data2 Type: SrcNodeID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                 |
| 12A7 | 4775 | NETO object handed up                   | NET[MCU] | Normal |                                                                                                                                                                                                                                                                                                |

## Definitions of Historic Events

|      |      |                                   |          |        |                                                                                                                                                                                                                                                                                                                                 |
|------|------|-----------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |      |                                   |          |        | Data 1: <b>Net Object State</b> Data1 Type: ObjState<br>Data 2: <b>Source RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Net Object ID</b> Data3 Type: ObjID<br>Data 4:Null Data4 Type: ushort                                                                                                                            |
| 12A8 | 4776 | NETO deleted object FIR only      | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Net Fragment ID</b> Data3 Type: netfragID<br>Data 4:Null Data4 Type: ushort                                                                                                                            |
| 12A9 | 4777 | NETO bad fragment added           | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Net Fragment ID</b> Data3 Type: netfragID<br>Data 4: <b>Net Fragment ID</b> Data4 Type: netfragID                                                                                                      |
| 12AA | 4778 | NETO fragment not found           | NET[MCU] | Normal | Data3 could equal the NetObject State if we are talking about the NETxVerboseLog<br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Net Fragment ID</b> Data3 Type: netfragID<br>Data 4:Null Data4 Type: ushort                                        |
| 12AB | 4779 | NETO object fragment sent         | NET[MCU] | Normal | Data 1: <b>Net Fragment ID</b> Data1 Type: netfragID<br>Data 2: <b>Net object ID</b> Data2 Type: ObjID<br>Data 3: <b>Net object type</b> Data3 Type: RunnerType<br>Data 4: <b>Data Length</b> Data4 Type: DataLength                                                                                                            |
| 12AC | 4780 | NETO object fragment was declined | NET[MCU] | Normal | Data 1: <b>xmtresultcode</b> Data1 Type: xmtresultcode<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Net Fragment ID</b> Data3 Type: netfragID<br>Data 4: <b>Data Length</b> Data4 Type: DataLength                                                                                            |
| 12AD | 4781 | NETO object list's timeout        | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Fragment ID</b> Data2 Type: netfragID<br>Data 3: <b>Net Object ID</b> Data3 Type: ObjID<br>Data 4: <b>Net Object State</b> Data4 Type: ObjState                                                                                                      |
| 12B0 | 4784 | NETD ACK has failed               | NET[MCU] | Normal | Data 1: <b>Destination RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>DataLength</b> Data2 Type: DataLength<br>Data 3: <b>Result=</b><br>(netdSendObject(DNPGetLocalAddress(DNPADDRGOLDEN),<br>destAddr, DNPCIDNETOBJMGNT, datatosend,<br>(NETOBJHEADDATALEN + 1))); Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 12B1 | 4785 | NETD sending object               | NET[MCU] | Normal | Data 1: <b>Destination RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Data Length</b> Data2 Type: DataLength<br>Data 3: <b>Result=DNPXmtMultiService</b> Data3 Type: ushort<br>Data 4: <b>Connection ID</b> Data4 Type: connectID                                                                                         |

|      |      |                                   |          |        |                                                                                                                                                                                                                          |
|------|------|-----------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12B2 | 4786 | NETD recieved object              | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Net Object ID</b> Data2 Type: ObjID<br>Data 3: <b>Net Object Type</b> Data3 Type: RunnerType<br>Data 4: <b>Data Length</b> Data4 Type: DataLength |
| 1800 | 6144 | GPS Enabled by IntelliLINK        | UTL[MCU] | Normal | Data 1: Debug Data Data1 Type: ushort                                                                                                                                                                                    |
| 1801 | 6145 | GPS Disabled by IntelliLINK       | UTL[MCU] | Normal | Data 1: Debug Data Data1 Type: ushort                                                                                                                                                                                    |
| 1802 | 6146 | GPS Not Active Time Source On     | UTL[MCU] | Normal | GPS is not the active time source set.<br>Data 1: Data1 Type: TimeSource<br>Data 2: Data2 Type: GPSStatus<br>Data 3: Data3 Type: FixQuality                                                                              |
| 1803 | 6147 | GPS Not Active Time Source Off    | UTL[MCU] | Normal | GPS is not the active time source cleared.<br>Data 1: Data1 Type: TimeSource<br>Data 2: Data2 Type: GPSStatus<br>Data 3: Data3 Type: FixQuality                                                                          |
| 1804 | 6148 | GPS Status Changed                | UTL[MCU] | Normal | GPS Status Changed.<br>Data 1: Data1 Type: TimeSource<br>Data 2: Data2 Type: GPSStatus<br>Data 3: Data3 Type: FixQuality<br>Data 4: Data4 Type: OneHexByte                                                               |
| 1F00 | 7936 | Prohibit Rest. Xmit Status Active | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                     |
| 1F01 | 7937 | Enable Rest. Xmit Status Active   | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                     |
| 1F02 | 7938 | Prohibit Rest. Xmit Status Clear  | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                     |
| 1F03 | 7939 | Enable Rest. Xmit Status Clear    | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                                     |
| 1F04 | 7940 | Error Registering Team Peer       | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort                                                                                                                                                                 |

## Definitions of Historic Events

|      |      |                                    |          |        |                                                                                                                      |
|------|------|------------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------|
|      |      |                                    |          |        | Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                             |
| 1F05 | 7941 | P2P message response               | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F06 | 7942 | Clr PR Status Control Pt Rcvd      | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F07 | 7943 | Clr Rest. Enab Stat Ctrl Pt Rcvd   | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F08 | 7944 | Prohibit Rest. Sent to Remote Dev  | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F09 | 7945 | Transfer Trip Sent to Remote Dev   | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F0A | 7946 | Error sending P.R. to Rmt Dev      | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F0B | 7947 | Error sending Xfer Trip to Rmt Dev | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F0C | 7948 | Transfer Trip Enabled              | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |
| 1F0D | 7949 | Transfer Trip Disabled             | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort |

|      |       |                                     |          |        |                                                                                                                                                                                                         |
|------|-------|-------------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1F0E | 7950  | Clearing Prohib Rest Blocked        | RTL[MCU] | All    | Clearing Prohibit Rest. Blocked<br>Data 1:Debug Data Data1 Type: ushort<br>Data 2:Debug Data Data2 Type: ushort<br>Data 3:Debug Data Data3 Type: ushort<br>Data 4:Debug Data Data4 Type: ClearPRBlocker |
| 1F0F | 7951  | DNP3 Response received              | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F10 | 7952  | P.R. sent from local conditions     | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F11 | 7953  | Enable Restoration sent to RTU      | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F12 | 7954  | RMT Xmit PR Enabd Local Conditions  | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F13 | 7955  | RMT Xmit PR Disabd Local Conditions | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F14 | 7956  | RMT Xmit PR Enabd for SCADA         | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F15 | 7957  | RMT Xmit PR Disabd for SCADA        | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 1F16 | 7958  | Clear PR on HLT removal disabled    | RTL[MCU] | Normal | Data 1: Data1 Type: ushort<br>Data 2: Data2 Type: ushort<br>Data 3: Data3 Type: ushort<br>Data 4: Data4 Type: ushort                                                                                    |
| 7218 | 29208 | NETX make runner source             | NET[MCU] | Normal | Data 1: <b>Size of runner in RTU addresses</b> Data1 Type:                                                                                                                                              |

## Definitions of Historic Events

|      |       |                                        |          |        |                                                                                                                                                                                                                                                     |
|------|-------|----------------------------------------|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                        |          |        | RTUAddress<br>Data 2: <b>Runner RTU lists</b> Data2 Type: RTUlists<br>Data 3: <b>Runner node lists</b> Data3 Type: Nodelists<br>Data 4:Null Data4 Type: ushort                                                                                      |
| 7219 | 29209 | NETX make runner RTUs                  | NET[MCU] | Normal | Data 1: <b>Size of runner in RTU addresses</b> Data1 Type: RTUAddress<br>Data 2: <b>Runner RTU lists</b> Data2 Type: RTUlists<br>Data 3: <b>Runner node lists</b> Data3 Type: Nodelists<br>Data 4:Null Data4 Type: ushort                           |
| 721A | 29210 | NETX make runner destination           | NET[MCU] | Normal | Data 1: <b>Size of runner in RTU addresses</b> Data1 Type: RTUAddress<br>Data 2: <b>Runner RTU lists</b> Data2 Type: RTUlists<br>Data 3: <b>Runner node lists</b> Data3 Type: Nodelists<br>Data 4:Null Data4 Type: ushort                           |
| 721B | 29211 | NETX begin sendind activation runners  | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                |
| 721C | 29212 | NETX activation object runner sent     | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4:Null Data4 Type: ushort                                                                          |
| 721D | 29213 | NETX forward activate runners          | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Runner Index Number</b> Data2 Type: RunnerIndex<br>Data 3: <b>Type of netlist distrubution[RunnerIndex]</b> Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                |
| 721E | 29214 | NETX forward activation runner index   | NET[MCU] | Normal | Data 1: <b>Runner Index Number</b> Data1 Type: RunnerIndex<br>Data 2: <b>Null</b> Data2 Type: ushort<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                                                            |
| 721F | 29215 | NETX forward activation runner source  | NET[MCU] | Normal | Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Source Net Node ID</b> Data2 Type: SrcNodeID<br>Data 3: <b>Destination Net Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                                     |
| 7220 | 29216 | NETX forward activation runner sent ok | NET[MCU] | Normal | NETX forwarding activation runner sent ok<br>Data 1: <b>Runner Index Number</b> Data1 Type: RunnerIndex<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4:Null Data4 Type: ushort |
| 7221 | 29217 | NETX Feeder Net is activated           | NET[MCU] | Normal |                                                                                                                                                                                                                                                     |

|      |       |                                        |          |        |                                                                                                                                                                                                                                           |
|------|-------|----------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                        |          |        | Data 1: <b>Our position in the Node Index Table</b> Data1 Type: NodeIndex<br>Data 2: <b>Feeder Net Ids in the array</b> Data2 Type: FeederNetID<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4: Null Data4 Type: ushort |
| 7222 | 29218 | NETX Feeder Net added to division list | NET[MCU] | Normal | Data 1: <b>VM table Index</b> Data1 Type: VMIndex<br>Data 2: <b>Feeder Net Ids in the array</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRCs</b> Data3 Type: FeederNetCRC<br>Data 4: Null Data4 Type: ushort                     |
| 7223 | 29219 | NETX accept activation runner          | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Runner index</b> Data2 Type: RunnerIndex<br>Data 3: <b>Type of netlist distribution</b> Data3 Type: FeederNetObjType<br>Data 4: <b>Null</b> Data4 Type: ushort        |
| 7224 | 29220 | NETX accept activation runner failed   | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Identify Actual Runner</b> Data2 Type: RunnerNumber<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                               |
| 7225 | 29221 | NETX accept activation runner result   | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Identify Actual Runner</b> Data2 Type: RunnerNumber<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                               |
| 7226 | 29222 | NETX Make Nodes start                  | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: FeederNetID<br>Data 2: <b>Local RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Number of associated payload elements</b> Data3 Type: NumPayload<br>Data 4: Null Data4 Type: ushort         |
| 7227 | 29223 | NETX Make Nodes complete               | NET[MCU] | Normal | Data 1: <b>Number of associated payload elements</b> Data1 Type: NumPayload<br>Data 2: <b>Number of Node IDs in the list</b> Data2 Type: NumNodeID<br>Data 3: Null Data3 Type: ushort<br>Data 4: Null Data4 Type: ushort                  |
| 7228 | 29224 | NETX add nodes start                   | NET[MCU] | Normal | Data 1: <b>Null</b> Data1 Type: ushort<br>Data 2: <b>Team Member Number</b> Data2 Type: TeamRecord<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4: <b>Null</b> Data4 Type: ushort                                    |
| 7229 | 29225 | NETX add node id                       | NET[MCU] | Normal | Data 1: <b>Node ID</b> Data1 Type: SrcNodeID<br>Data 2: <b>Switch</b> Data2 Type: SWnum<br>Data 3: <b>Side information related to the switch</b> Data3 Type: SideInfo<br>Data 4: <b>Null</b> Data4 Type: ushort                           |

## Definitions of Historic Events

|      |       |                                           |          |        |                                                                                                                                                                                                                                                                                                                                                                      |
|------|-------|-------------------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 722A | 29226 | NETX add a new node                       | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Number of Node Index entries in the Node Table</b> Data2 Type: NumNodeIndex<br>Data 3: <b>Number of Node IDs in list</b> Data3 Type: NumNodeID<br>Data 4:Null Data4 Type: ushort                                                                                                                  |
| 722B | 29227 | NETX report adjacent NetList start        | NET[MCU] | Normal | Data 1: <b>Left Node Index</b> Data1 Type: NodeIndex<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Feeder Net CRC of the left</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                       |
| 722C | 29228 | NETX report adjacent to runner side1      | NET[MCU] | Normal | Data 1: <b>Tie delivers an adjacent NL to a Runner Source for delivery</b> Data1 Type: RunnerType<br>Data 2: <b>Destination Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Destination Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                        |
| 722D | 29229 | NETX report adj netlist obj send to s1    | NET[MCU] | Normal | NETX report adjacent netlist object send to side1<br><br>Data 1: <b>Number of teams</b> Data1 Type: NumOfTeams<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Length of Feeder Net description method</b> Data3 Type: dctsiz<br>Data 4:Null Data4 Type: ushort                                                                       |
| 722E | 29230 | NETX Adj fdernet netlist propagation done | NET[MCU] | Normal | NETX Adj feedernet netlist propagation done<br><br>Data 1: <b>Adjacent FeederNet's CRC</b> Data1 Type: Hexushort<br>Data 2: <b>Returned netlist runners of the adj feedernet</b> Data2 Type: NumRunners<br>Data 3: <b>Netlist runners in the adj feedernet</b> Data3 Type: NumRunners<br>Data 4: <b>Sent netlist runners of adj feedernet</b> Data4 Type: NumRunners |
| 7230 | 29232 | NETX send adj Feeder Net Runner's qty     | NET[MCU] | Normal | NETX send adjacent Feeder Net Runner's qty<br><br>Data 1: <b>This is the runner's source device</b> Data1 Type: DeviceNumber<br>Data 2: <b>Runner Source row number in nnet</b> Data2 Type: NetViewRowNum<br>Data 3: <b>Number of runners</b> Data3 Type: NumRunners<br>Data 4:Null Data4 Type: ushort                                                               |
| 7231 | 29233 | NETX send adj FdrNet runner's FdrNet ID   | NET[MCU] | Normal | NETX send adjacent Feeder Net runner's feedernetID<br><br>Data 1: <b>Runner Index</b> Data1 Type: RunnerIndex<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                                    |
| 7232 | 29234 | NETX send adj Feeder Net runner's type    | NET[MCU] | Normal | NETX send adjacent Feeder Net runner's type<br><br>Data 1: <b>Runner Type</b> Data1 Type: RunnerType<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                                             |

|      |       |                                                |          |        |                                                                                                                                                                                                                                                                                           |
|------|-------|------------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7233 | 29235 | NETX send adj<br>FNet runner's adj<br>FNet ID  | NET[MCU] | Normal | NETX send adjacent Feeder Net runner's adj FeederNetID<br><br>Data 1: <b>Adjecent Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Adjecent Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Number of teams</b> Data3 Type: NumOfTeams<br>Data 4:Null Data4 Type: ushort |
| 7234 | 29236 | NETX send adj<br>Feeder Net<br>runner's rtu    | NET[MCU] | Normal | NETX send adjacent Feeder Net runner's rtu<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Length of Feeder Net description method</b> Data3 Type: detsiz<br>Data 4: <b>Null</b> Data4 Type: ushort       |
| 7235 | 29237 | NETX request<br>netlist ok                     | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Net destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Length of Feeder Net description method</b> Data3 Type: detsiz<br>Data 4: <b>Null</b> Data4 Type: ushort                                         |
| 7236 | 29238 | NETX reply<br>Feeder Net req:<br>crc is bad    | NET[MCU] | Normal | NETX reply Feeder Net request, crc is bad<br><br>Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                               |
| 7237 | 29239 | NETX reply<br>request sent ok                  | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Destination RTU address</b> Data2 Type: RTUAddress<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4:Null Data4 Type: ushort                                                                              |
| 7238 | 29240 | NETX reply<br>Feeder Net<br>request not found  | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                        |
| 7239 | 29241 | NETX requested<br>Feeder Net is a<br>duplicate | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                 |
| 723A | 29242 | NETX requested<br>Feeder Net good              | NET[MCU] | Normal | Data 1: <b>Netx is out of memory</b> Data1 Type: ErrorCodeNETX<br>Data 2: <b>NetxFindspace(incoming number of teams)</b> Data2 Type: NumOfTeams<br>Data 3: <b>Incoming number of teams</b> Data3 Type: NumOfTeams<br>Data 4:Null Data4 Type: ushort                                       |
| 723B | 29243 | NETX save<br>requested Feeder<br>Net ID        | NET[MCU] | Normal | Data 1: <b>Incoming Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Incoming number of teams</b> Data3 Type: NumOfTeams<br>Data 4:Null Data4 Type: ushort                                                      |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                   |
|------|-------|------------------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 723C | 29244 | NETX reequested Feeder Net saved ok      | NET[MCU] | Normal | Data 1: <b>Size of team array</b> Data1 Type: ushort<br>Data 2: <b>Size of teams data</b> Data2 Type: ushort<br>Data 3: Null Data3 Type: ushort<br>Data 4: Null Data4 Type: ushort                                                                |
| 723D | 29245 | NETX forward Feeder Net runner           | NET[MCU] | Normal | Data 1: <b>Identify Actual Runner</b> Data1 Type: RunnerNumber<br>Data 2: <b>Runner Index</b> Data2 Type: RunnerIndex<br>Data 3: <b>Type of netlist distribution[RunnerIndex]</b> Data3 Type: FeederNetObjType<br>Data 4: Null Data4 Type: ushort |
| 723E | 29246 | NETX's forward runner's index            | NET[MCU] | Normal | Data 1: <b>Incoming Runner's index</b> Data1 Type: RunnerIndex<br>Data 2: Null Data2 Type: ushort<br>Data 3: Null Data3 Type: ushort<br>Data 4: Null Data4 Type: ushort                                                                           |
| 723F | 29247 | NETX forward Feeder Net destination rtu  | NET[MCU] | Normal | Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Source Node ID</b> Data2 Type: SrcNodeID<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4: Null Data4 Type: ushort                                          |
| 7240 | 29248 | NETX forward Feeder Net rnr sent: OK     | NET[MCU] | Normal | NETX forward FeederNet runner sent,ok<br>Data 1: <b>Runner Index</b> Data1 Type: RunnerIndex<br>Data 2: <b>RTU address</b> Data2 Type: RTUAddress<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4: Null Data4 Type: ushort         |
| 7243 | 29251 | NETX forward adjacent Feeder Net sent ok | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Length of Feeder Net description method</b> Data3 Type: dctsiz<br>Data 4: Null Data4 Type: ushort            |
| 7244 | 29252 | NETX save adjacent Feeder Net runner cvd | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Number of teams</b> Data3 Type: NumOfTeams<br>Data 4: <b>Null</b> Data4 Type: ushort                                 |
| 7245 | 29253 | NETX save adjacent Feeder Net IDs        | NET[MCU] | Normal | Data 1: <b>Adjecent Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Adjecent Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Number of teams</b> Data3 Type: NumOfTeams<br>Data 4: Null Data4 Type: ushort                      |
| 7246 | 29254 | NETX save adjacent Feeder Net node ID    | NET[MCU] | Normal | Data 1: <b>Feeder Net Node ID</b> Data1 Type: SrcNodeID<br>Data 2: <b>Node Index</b> Data2 Type: NodeIndex<br>Data 3: Null Data3 Type: ushort<br>Data 4: Null Data4 Type: ushort                                                                  |

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                    |
|------|-------|------------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7247 | 29255 | NETX save adj FeederNet dup chk hit      | NET[MCU] | Normal | NETX save adjacent Feeder Net duplicate check hit<br><br>Data 1: <b>Feeder Net ID in the array</b> Data1 Type: FeederNetID<br>Data 2: <b>Adjecent Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                    |
| 7249 | 29257 | NETX save adj Feeder Net number of teams | NET[MCU] | Normal | NETX save adjacent Feeder Net number of teams<br><br>Data 1: <b>Adjecent Number of Teams</b> Data1 Type: NumOfTeams<br>Data 2: <b>Starting Index in the array</b> Data2 Type: FeederNetIndex<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                   |
| 724A | 29258 | NETX save adj FNet; our num of teams     | NET[MCU] | Normal | NETX save adjacent Feeder Net, our num of teams<br><br>Data 1: <b>Our number of teams</b> Data1 Type: NumOfTeams<br>Data 2: <b>Starting Index in the array</b> Data2 Type: FeederNetIndex<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                      |
| 724E | 29262 | NETX adjacent FNet added to division net | NET[MCU] | Normal | NETX adjacent Feeder Net added to division net<br><br>Data 1: <b>VM table index for this Feeder Net ID</b> Data1 Type: VMIndex<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort |
| 724F | 29263 | NETX save adjacent Feeder Net conflict   | NET[MCU] | Normal | <br><br>Data 1: <b>Feeder Net ID in the array</b> Data1 Type: FeederNetID<br>Data 2: <b>Adjecent Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                     |
| 7250 | 29264 | NETX save adj FeederNet node indx failed | NET[MCU] | Normal | NETX save adjacent Feeder Net node index failed<br><br>Data 1: <b>Node Index</b> Data1 Type: NodeIndex<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                         |
| 7251 | 29265 | NETX save Feeder Net runner recieved     | NET[MCU] | Normal | <br><br>Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Number of teams</b> Data3 Type: NumOfTeams<br>Data 4:Null Data4 Type: ushort                                                                  |
| 7252 | 29266 | NETX save Feeder Net runner's nodeindex  | NET[MCU] | Normal | <br><br>Data 1: <b>Incoming Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Node Index</b> Data3 Type: NodeIndex<br>Data 4:Null Data4 Type: ushort                                                      |
| 7253 | 29267 | NETX save Feeder Net's dup replaced      | NET[MCU] | Normal | NETX save Feeder Net's duplicate replaced<br><br>Data 1: <b>Feeder Net ID in the array</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                            |
| 7254 | 29268 | NETX save Feeder Net's                   | NET[MCU] | Normal |                                                                                                                                                                                                                                                                                    |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                              |
|------|-------|------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       | present status                           |          |        | Data 1: <b>Feeder Net ID in the array</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                       |
| 725A | 29274 | NETX save Feeder Net runner success      | NET[MCU] | Normal | Data 1: <b>Node Index</b> Data1 Type: NodeIndex<br>Data 2: <b>Left Node/Right Node Index</b> Data2 Type: NodeIndex<br>Data 3: <b>Incoming Feeder Net ID</b> Data3 Type: FeederNetID<br>Data 4:Null Data4 Type: ushort                                        |
| 725B | 29275 | NETX save Feeder Net's both sides check  | NET[MCU] | Normal | Data 1: <b>Incoming Node ID</b> Data1 Type: SrcNodeID<br>Data 2: <b>Team Member Count</b> Data2 Type: ushort<br>Data 3: <b>Node Index</b> Data3 Type: NodeIndex<br>Data 4:Null Data4 Type: ushort                                                            |
| 725C | 29276 | NETX save Feeder Net to our side         | NET[MCU] | Normal | Data 1: <b>FeederNetID[NodeIndex]</b> Data1 Type: FeederNetID<br>Data 2: <b>FeederNetID[otherIndex]</b> Data2 Type: FeederNetID<br>Data 3: <b>Node Index</b> Data3 Type: NodeIndex<br>Data 4:Null Data4 Type: ushort                                         |
| 725D | 29277 | NETX saved Feeder Net added to the index | NET[MCU] | Normal | Data 1: <b>Node Index</b> Data1 Type: NodeIndex<br>Data 2: <b>Incoming Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Incoming Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                        |
| 725F | 29279 | NETX saved FNet's nodeindx has failed    | NET[MCU] | Normal | NETX saved Feeder Net's node index has failed<br>Data 1: <b>Node Index</b> Data1 Type: NodeIndex<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4: <b>Null</b> Data4 Type: ushort |
| 7261 | 29281 | NETX accept the Feeder Net runner        | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Identify actual runner</b> Data2 Type: RunnerNumber<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                  |
| 7263 | 29283 | NETX register DNP Address List Size      | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                         |
| 7264 | 29284 | NETX communication check runner sent ok  | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Size of received runner in Bytes</b> Data3 Type: RunnerSize<br>Data 4:Null Data4 Type: ushort                                                              |
| 7265 | 29285 | NETX get communication chk runner number | NET[MCU] | Normal | NETX get communication check runner number<br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Number of associated payload elements</b> Data3 Type:                                                    |

|      |       |                                                |          |        |                                                                                                                                                                                                                                                                                      |
|------|-------|------------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                                |          |        | NumPayLoad<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                                                         |
| 7266 | 29286 | NETX comm chk<br>rnr's size is<br>mismatched   | NET[MCU] | Normal | NETX communication check runner's size is mismatched<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Object Length</b> Data2 Type: DataLength<br>Data 3: <b>Size of recieved runner in Bytes</b> Data3 Type: RunnerSize<br>Data 4:Null Data4 Type: ushort |
| 7267 | 29287 | NETX get<br>communication<br>chk runner index  | NET[MCU] | Normal | NETX get communication check runner index<br><br>Data 1: <b>Size of recieved runner in Bytes</b> Data1 Type: RunnerSize<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                                   |
| 7268 | 29288 | NETX get<br>communication<br>chk rnr's rtu add | NET[MCU] | Normal | NETX get communication check runner's rtu address<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Our local RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                   |
| 7269 | 29289 | NETX get comm<br>chk rnr's dest rtu            | NET[MCU] | Normal | NETX get communication check runner's destination rtu<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Our local RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort               |
| 726A | 29290 | NETX get comm<br>chkrnr rnr internal<br>node   | NET[MCU] | Normal | NETX get communication checkrunner runner internal nodes<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Runner Index</b> Data2 Type: RunnerIndex<br>Data 3: <b>Node Count</b> Data3 Type: NodeCount<br>Data 4:Null Data4 Type: ushort                        |
| 726C | 29292 | NETX get comm<br>chk runner rtu<br>address     | NET[MCU] | Normal | NETX get communication check runner rtu address<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Our local RTU Address</b> Data2 Type: RTUAddress<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                          |
| 726D | 29293 | NETX get comm<br>chk rnr indx fault            | NET[MCU] | Normal | NETX get communication check runner index fault<br><br>Data 1: <b>Size of the recived runner in Bytes</b> Data1 Type:<br>RunnerSize<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                       |
| 726E | 29294 | NETX begin<br>forwarding comm<br>chk rnr       | NET[MCU] | Normal | NETX begin forwarding communication check runner<br><br>Data 1: <b>Identify Actual Runner Number</b> Data1 Type:<br>RunnerNumber<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Size of runner in RTU addresses</b> Data3 Type:<br>RTUAddress<br>Data 4:Null Data4 Type: ushort     |
| 726F | 29295 | NETX forwarding<br>comm check rnr<br>sent ok   | NET[MCU] | Normal | NETX forwarding communication check runner sent ok<br><br>Data 1:Null Data1 Type: ushort<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress                                                                                                                                        |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                           |
|------|-------|------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                          |          |        | Data 3: <b>Size of recieved runner in Bytes</b> Data3 Type: RunnerSize<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                  |
| 7270 | 29296 | NETX accept communication check runner   | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Size of runner in RTU Addresses</b> Data3 Type: RTUAddress<br>Data 4:Null Data4 Type: ushort                                                                                        |
| 7271 | 29297 | NETX comm chk rnr size is mismatched     | NET[MCU] | Normal | NETX communication check runner size is mismatched<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Data Length</b> Data2 Type: DataLength<br>Data 3: <b>Size of recieved runner in Bytes</b> Data3 Type: RunnerSize<br>Data 4:Null Data4 Type: ushort          |
| 7272 | 29298 | NETX communication check runner's index  | NET[MCU] | Normal | Data 1: <b>Size of recieved runner in Bytes</b> Data1 Type: RunnerSize<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Null</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                                                                                                 |
| 7273 | 29299 | NETX get comm check runner's data        | NET[MCU] | Normal | NETX get communication check runner's data<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Object Length</b> Data2 Type: DataLength<br>Data 3: <b>Size of runner in RTU Addresses</b> Data3 Type: RTUAddress<br>Data 4:Null Data4 Type: ushort                 |
| 7274 | 29300 | NETX done accepting comm check runners   | NET[MCU] | Normal | NETX done accepting communication check runners<br><br>Data 1: <b>Claimed in dispatch</b> Data1 Type: EntryPointDevice<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Actual runner number from header</b> Data3 Type: RunnerNumber<br>Data 4:Null Data4 Type: ushort |
| 7275 | 29301 | NETX make table of runner number         | NET[MCU] | Normal | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                                 |
| 7276 | 29302 | NETX make runner table count             | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                                                                                                                                 |
| 7277 | 29303 | NETX acpt data collection rnr bad count  | NET[MCU] | Normal | NETX accept data collection runner bad count<br><br>Data 1: <b>Net Destination Node ID</b> Data1 Type: DestNodeID<br>Data 2: <b>Runner Number</b> Data2 Type: RunnerNumber<br>Data 3: <b>Runner's quantity</b> Data3 Type: RunnerQuantity<br>Data 4:Null Data4 Type: ushort               |
| 7278 | 29304 | NETX data delivery rnr node index failed | NET[MCU] | Normal | NETX data delivery Runner node index failed<br><br>Data 1: <b>Node ID</b> Data1 Type: SrcNodeID<br>Data 2:Null Data2 Type: ushort                                                                                                                                                         |

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                                                        |
|------|-------|------------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                          |          |        | Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                                                                       |
| 7279 | 29305 | NETX data runner information             | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                   |
| 727A | 29306 | NETX data runner source rtu              | NET[MCU] | Normal | Data 1: <b>The Normal State NetView length</b> Data1 Type: NetViewLength<br>Data 2: <b>The local device number of the FN runner source device</b> Data2 Type: DeviceIndex<br>Data 3: <b>RTU Address</b> Data3 Type: RTUAddress<br>Data 4:Null Data4 Type: ushort                                                       |
| 727B | 29307 | NETX data runner selection               | NET[MCU] | Normal | Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Nnet row number</b> Data2 Type: NetViewRowNum<br>Data 3: <b>The local device number of the FN runner source device</b> Data3 Type: DeviceIndex<br>Data 4:Null Data4 Type: ushort                                                                    |
| 727C | 29308 | NETX peer is registered already          | NET[MCU] | Normal | Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort                                                                                                                             |
| 727D | 29309 | NETX peer is deregistered; reregistering | NET[MCU] | Normal | NETX peer is deregistered, re-registering<br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort                                                                                |
| 727E | 29310 | NETX dest device node indx failure       | NET[MCU] | Normal | NETX destination device node index failure<br>Data 1: <b>Find this node in the NLTA arrays</b> Data1 Type: IndexMngTable<br>Data 2: <b>VM table Index</b> Data2 Type: VMIndex<br>Data 3: <b>Index into the substation list for Feeder Net "tree root"&gt;</b> Data3 Type: Substation<br>Data 4:Null Data4 Type: ushort |
| 7288 | 29320 | NETX dispatch designer Feeder Net object | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                                                                                               |
| 7289 | 29321 | NETX dispatch FeederNet source and dest  | NET[MCU] | Normal | NETX dispatch Feeder Net source and destination<br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                                            |
| 728A | 29322 | NETX dispatch Feeder Net dest            | NET[MCU] | Normal | NETX dispatch Feeder Net destination Node ID                                                                                                                                                                                                                                                                           |

## Definitions of Historic Events

|      |       |                                               |          |        |                                                                                                                                                                                                                                                                                                          |
|------|-------|-----------------------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       | Node ID                                       |          |        | Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Incoming Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Incoming Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                                                              |
| 728B | 29323 | NETX dispatch<br>Feeder Net<br>delivery index | NET[MCU] | Normal | Data 1: <b>Incoming Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                                                                                |
| 728C | 29324 | NETX dispatch<br>Feeder Net<br>delivery save  | NET[MCU] | Normal | Data 1: <b>Destination Index</b> Data1 Type: DestinationIndex<br>Data 2: <b>Runner Number</b> Data2 Type: RunnerNumber<br>Data 3: <b>Size of runner in RTU Addresses</b> Data3 Type: RTUAddress<br>Data 4:Null Data4 Type: ushort                                                                        |
| 728E | 29326 | NETX dispatch<br>comm chk source<br>and dest  | NET[MCU] | Normal | NETX dispatch communication check source and destination<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                 |
| 728F | 29327 | NETX dispatch<br>comm check<br>FeederNet ID   | NET[MCU] | Normal | NETX dispatch communication check Feeder Net ID<br><br>Data 1: <b>Clamied in Dispatch</b> Data1 Type: EntryPointDevice<br>Data 2: <b>Destination Index</b> Data2 Type: DestinationIndex<br>Data 3: <b>Number of associated payload elements</b> Data3 Type: NumPayLoad<br>Data 4:Null Data4 Type: ushort |
| 7295 | 29333 | NETX dispatch<br>comm check sent<br>to        | NET[MCU] | Normal | NETX dispatch communication check sent to<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                               |
| 7296 | 29334 | NETX dispatch<br>comm check<br>handled        | NET[MCU] | Normal | NETX dispatch communication check handled<br><br>Data 1: <b>Runner Index</b> Data1 Type: RunnerIndex<br>Data 2: <b>Null</b> Data2 Type: ushort<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                       |
| 7297 | 29335 | NETX dispatch<br>netlist rqst src and<br>dest | NET[MCU] | Normal | NETX dispatch netlist request source and destination<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                     |
| 7298 | 29336 | NETX dispatch<br>netlist request<br>FNet ID   | NET[MCU] | Normal | NETX dispatch netlist request Feeder Net ID<br><br>Data 1: <b>Destination RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>FeederNetID</b> Data2 Type: FeederNetID<br>Data 3: <b>FeederNetCRC</b> Data3 Type: FeederNetCRC<br>Data 4:Null Data4 Type: ushort                                         |
| 729A | 29338 | NETX dispatch<br>primary rqst<br>netlist resp | NET[MCU] | Normal | NETX dispatch primary request netlist response<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress                                                                                                                                                                                           |

|      |       |                                                |          |        |                                                                                                                                                                                                                                                                                                        |
|------|-------|------------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                                |          |        | Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                                                                                                                                           |
| 729B | 29339 | NETX dispatch<br>prim netlist src<br>and dest  | NET[MCU] | Normal | NETX dispatch primary netlist source and destination<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                   |
| 729C | 29340 | NETX dispatch<br>primary netlist<br>source ID  | NET[MCU] | Normal | Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Data Length</b> Data2 Type: DataLength<br>Data 3: <b>Net source Node ID</b> Data3 Type: SrcNodeID<br>Data 4:Null Data4 Type: ushort                                                                                             |
| 729D | 29341 | NETX dispatch<br>primary netlist<br>indx found | NET[MCU] | Normal | NETX dispatch primary netlist index found<br><br>Data 1: <b>Feeder Net ID</b> Data1 Type: FeederNetID<br>Data 2: <b>Feeder Net CRC</b> Data2 Type: FeederNetCRC<br>Data 3: <b>Runner Index</b> Data3 Type: RunnerIndex<br>Data 4:Null Data4 Type: ushort                                               |
| 729E | 29342 | NETX dispatch<br>primary netlist<br>indx nums  | NET[MCU] | Normal | NETX dispatch primary netlist indexed numbers<br><br>Data 1: <b>Destination Index</b> Data1 Type: DestinationIndex<br>Data 2: <b>Runner Number</b> Data2 Type: RunnerNumber<br>Data 3: <b>Size of runner in RTU Addresses</b> Data3 Type:<br>RTUAddress<br>Data 4:Null Data4 Type: ushort              |
| 72A0 | 29344 | NETX dispatch<br>newadj delivery<br>rnr src ST | NET[MCU] | Normal | NETX dispatch new adjacent delivery runner source ST<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Net Destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort               |
| 72A1 | 29345 | NETX dispatch<br>new adj delivery<br>rnr done  | NET[MCU] | Normal | NETX dispatch new adjacent delivery runner done<br><br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                            |
| 72A4 | 29348 | NETX dispatch<br>adj netlist reporter<br>src   | NET[MCU] | Normal | NETX dispatch adjacent netlist reporter source<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Net destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                     |
| 72A5 | 29349 | NETX dispatch<br>adj netlist report<br>sending | NET[MCU] | Normal | NETX dispatch adjacent netlist reporter sending<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Number of actual data elements in DLV</b> Data2 Type:<br>NumDataElements<br>Data 3: <b>Net destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort |
| 72A8 | 29352 | NETX dispat act<br>Netlist rep fail to<br>frwd | NET[MCU] | Normal | NETX dispatch Active Netlist reporter failed to forward<br><br>Data 1: <b>Source RTU Address</b> Data1 Type: RTUAddress<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress                                                                                                               |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                                                                                                          |
|------|-------|------------------------------------------|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                          |          |        | Data 3: <b>Net destination Node ID</b> Data3 Type: DestNodeID<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                                                                                          |
| 72AA | 29354 | NETX state machine A state 01 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Waiting for IT Designer</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Null</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                          |
| 72AB | 29355 | NETX state machA state 01 depart FNet ID | NET[MCU] | Normal | NETX state machine A state 01 depart Feeder Net ID<br><br>Data 1: <b>Incoming Feeder Net ID from IntelliTeam Designer</b> Data1 Type: FeederNetID<br>Data 2: <b>Incoming new Feeder Net CRC from IntelliTeam Designer</b> Data2 Type: FeederNetCRC<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                   |
| 72AC | 29356 | NETX state machA state01 num of teams    | NET[MCU] | Normal | NETX state machine A state 01 number of teams<br><br>Data 1: <b>Feeder Net incoming team array number of teams</b> Data1 Type: INCNUMTEAM<br>Data 2: <b>Number of Device-Wire pairs from prep function</b> Data2 Type: DeviceWirepairs<br>Data 3: <b>Number of Incoming Feeder Net Flags from ITD</b> Data3 Type: FeederNetObjectFlags<br>Data 4:Null Data4 Type: ushort |
| 72AD | 29357 | NETX state machine A state 02 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Perform NETview Express analysis</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Waiting for IT Designer</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                                                              |
| 72AE | 29358 | NETX statemachA state02 arriv net stat   | NET[MCU] | Normal | NETX state machine A state 02 arrival net status<br><br>Data 1: <b>Number of devices in the Feeder Net</b> Data1 Type: NumDevicesinFN<br>Data 2: <b>Number if entries in row,one for device,one for wire</b> Data2 Type: ExpressNetViewRow<br>Data 3: <b>Number of paths in this Feeder Net</b> Data3 Type: NumPaths<br>Data 4:Null Data4 Type: ushort                   |
| 72AF | 29359 | NETX state machine A state 03 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Create comm check runners and launch, then wait for return</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Perform NETview Express analysis</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                           |
| 72B0 | 29360 | Register the peer RTU Address            | NET[MCU] | Normal | Data 1: <b>Number of NETLIST runners in RunnerSource</b> Data1 Type: NETLISTRNR<br>Data 2: <b>Size of runner in RTU addresses</b> Data2 Type: RTUAddress<br>Data 3: <b>RTU address of the controls for each stop along the way</b>                                                                                                                                       |

|      |       |                                                   |          |        |                                                                                                                                                                                                                                                                                              |
|------|-------|---------------------------------------------------|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                                   |          |        | Data3 Type: RTUAddress<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                                                     |
| 72B1 | 29361 | NetX statemachA<br>state03 peer regs<br>fail      | NET[MCU] | Normal | NetX state machine A state 03 peer registration has failed<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort          |
| 72B2 | 29362 | NetX statemachA<br>state03 all peers<br>regs      | NET[MCU] | Normal | NetX state machine A state 03 all peers registered<br><br>Data 1: <b>Common check runners timeout counter</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Number of NETLIST runners in RunnerSource</b> Data3 Type: NETLISTRNR<br>Data 4:Null Data4 Type: ushort      |
| 72B3 | 29363 | Netx state machA<br>state 03 timeout<br>failed    | NET[MCU] | Normal | Netx state machine A state 03 timeout failed<br><br>Data 1: <b>Common check of NETLIST runners in RunnerSource</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Number of NETLIST runners in RunnerSource</b> Data3 Type: NETLISTRNR<br>Data 4:Null Data4 Type: ushort |
| 72B4 | 29364 | NETX<br>statemachA<br>state03 make rnrs<br>failed | NET[MCU] | Normal | NETX state machine A state 03 make runners failed<br><br>Data 1: <b>NETV source normal</b> Data1 Type: NETVSRC<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                         |
| 72B5 | 29365 | NETX state<br>machine A state<br>04 arrival       | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>go ahead and SEND the CCRs</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Create comm check runners and launch, then wait for return</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                     |
| 72B6 | 29366 | NETX state<br>machine A state<br>04 is done       | NET[MCU] | Normal | Data 1: <b>Common check of NETLIST runners in RunnerSource</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Number of NETLIST runners in RunnerSource</b> Data3 Type: NETLISTRNR<br>Data 4:Null Data4 Type: ushort                                                     |
| 72B7 | 29367 | NETX state<br>machine A state<br>05 arrival       | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Start FN delivery Runners</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>go ahead and SEND the CCRs</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                      |
| 72B8 | 29368 | NETX<br>statemachA state<br>05 arrival FNet ID    | NET[MCU] | Normal | NETX state machine A state 05 arrival FeederNET ID<br><br>Data 1: <b>Feeder Net incoming team array number of teams</b> Data1                                                                                                                                                                |

## Definitions of Historic Events

|      |       |                                       |          |        |                                                                                                                                                                                                                                                                        |
|------|-------|---------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                       |          |        | Type: INCNUMTEAM<br>Data 2: <b>Number of NETLIST runners in RunnerSource</b> Data2 Type: NETLISTRNR<br>Data 3: <b>Incoming new Feeder Net ID from IntelliTeam Designer</b> Data3 Type: FeederNetID<br>Data 4:Null Data4 Type: ushort                                   |
| 72B9 | 29369 | NETX state machine A state 06 arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Send activate runners</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Start FN delivery Runners</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                     |
| 72BA | 29370 | NETX state machine A state 07 arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Dashboard Feedback at the end of the successful deployment</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Send activate runners</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                    |
| 72BB | 29371 | NETX state machine A state 11 arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Error Reporting</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Dashboard Feedback at the end of the successful deployment</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                          |
| 72BF | 29375 | NETX state machine C state 2 arrival  | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Checks Registrations of the Destination RTU Addresses for the CCRs to be sent</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Error Reporting</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort       |
| 72C0 | 29376 | NETX statemachC state2 regs is good   | NET[MCU] | Normal | NETX state machine C state 2 registration is good<br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort |
| 72C1 | 29377 | NETX state machC state 2 regs failed  | NET[MCU] | Normal | NETX state machine C state 2 registration failed<br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort  |
| 72C2 | 29378 | NETX state machine C state 02 is done | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Current state of machine C State 2</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Previous state of machine C State 2</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                              |
| 72C3 | 29379 | NETX state machine D state 01 Arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort                                                                                                                                                                                                                                         |

|      |       |                                         |          |        |                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|-------|-----------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                         |          |        | Data 2: <b>Idle state waiting for management Sequence to be initiated upon need</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Null</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                  |
| 72C4 | 29380 | NETX state machine D state 02 Arrival   | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Registers the RTU of the control that sent the Netlist Reporter Runner to us</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Idle state waiting for management Sequence to be initiated upon need</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                        |
| 72C5 | 29381 | NETX state machD state 2 registered DNP | NET[MCU] | Normal | NETX state machine D state 2 registered DNP<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                  |
| 72C6 | 29382 | NETX state machine D state 3 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Checks on and waits for successful registration of the DNP Address from D0</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Registers the RTU of the control that sent the Netlist Reporter Runner to us</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                  |
| 72C7 | 29383 | NETX state machD state 03 regs failed   | NET[MCU] | Normal | NETX state machine D state 03 registration failed<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort                                                                                                                                                         |
| 72C8 | 29384 | NETX statemachD state 03 regs is good   | NET[MCU] | Normal | NETX state machine D state 03 registration is good<br><br>Data 1: <b>RTU Address</b> Data1 Type: RTUAddress<br>Data 2:Null Data2 Type: ushort<br>Data 3: <b>Registration Status</b> Data3 Type: RegistrationStatus<br>Data 4:Null Data4 Type: ushort                                                                                                                                                        |
| 72C9 | 29385 | NETX state machine D state 04 arrival   | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Scans the list of reported Primary FeederNets and requests each one with delay between each request provided by next state waiting on the reply.</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Checks on and waits for successful registration of the DNP Address from D0</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort              |
| 72CA | 29386 | NETX state machine D state 05 arrival   | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Waits until the requested Feeder Net has been returned then goes back to previous state</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Scans the list of reported Primary FeederNets and requests each one with delay between each request provided by next state waiting on the reply.</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                                                                                                                                       |
|------|-------|------------------------------------------|----------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 72CB | 29387 | NETX state machine D state 06 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>the list of reported Adjacent FeederNets and requests each one with delay between each request provided by next state waiting on the reply</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Waits until the requested Feeder Net has been returned then goes back to previous state</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort |
| 72CC | 29388 | NETX state machine D state 07 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Waits until the requested Feeder Net has been returned then goes back to previous state</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>The list of reported Adjacent FeederNets and requests each one with delay between each request provided by next state waiting on the reply</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort |
| 72CD | 29389 | NETX state machine D state 08 arrival    | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>All Delivered now, proceed to apply</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Waits until the requested Feeder Net has been returned then goes back to previous state</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                        |
| 72CE | 29390 | NETX state machD state8 make div net     | NET[MCU] | Normal | NETX state machine D state 8 make division net<br><br>Data 1: <b>Record Where in VM find array this net list is in</b> Data1 Type: ushort<br>Data 2: <b>Feeder Net ID</b> Data2 Type: FeederNetID<br>Data 3: <b>Feeder Net CRC</b> Data3 Type: FeederNetCRC<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                 |
| 72CF | 29391 | NETX state machine D state 9 arrival     | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Registers New RTUs and copies our DivisionNet information to appropriate tables</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>All Delivered now, proceed to apply</b> Data3 Type: StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                                                |
| 72D0 | 29392 | NETX state machine D state 09 Make Nodes | NET[MCU] | Normal | Data 1: <b>Index into the substation list for Feeder Net "tree root"</b> Data1 Type: Substation<br>Data 2: <b>Power Source Data-Starting Row in Present NetView for this Power Source</b> Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                      |
| 72D1 | 29393 | NETX state machD state9 make nodes fail  | NET[MCU] | Normal | NETX state machine D state 9 make nodes fail<br><br>Data 1:Null Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                                              |

|      |       |                                             |          |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------|-------|---------------------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 72D2 | 29394 | NETX state<br>machine D state<br>10 arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Cleanup and return to Idle state</b> Data2 Type:<br>StatusFeedbackArea<br>Data 3: <b>All Delivered now, proceed to apply</b> Data3 Type:<br>StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                                                                                           |
| 72D3 | 29395 | NETX state<br>machine E state<br>01 arrival | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Runner Source Device Data Collection and Data<br/>Distribution manager IDLEStarts Runners on signal from<br/>State Machine F State 4 when it finds we are a runner source</b><br>Data2 Type: StatusFeedbackArea<br>Data 3: <b>Cleanup and return to Idle state</b> Data3 Type:<br>StatusFeedbackArea<br>Data 4:Null Data4 Type: ushort                                                                                             |
| 72D4 | 29396 | NETX state<br>machine F state<br>01 Arrival | NET[MCU] | Normal | Data 1: <b>Runner Number for non-runner source devices</b> Data1<br>Type: RunnerNumber<br>Data 2: <b>State Machine F Manages sequences of operations in<br/>support of multiple simultaneous, Netlist Distributions</b> Data2<br>Type: StatusFeedbackArea<br>Data 3: <b>Null</b> Data3 Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                       |
| 72D5 | 29397 | NETX state<br>machine F state<br>02 Arrival | NET[MCU] | Normal | Data 1: <b>Runner Number for non-runner source devices</b> Data1<br>Type: RunnerNumber<br>Data 2: <b>This state waits for the arrival of all required Activation<br/>Runners then applies the new Feeder Net to NETV and DAT</b><br>Data2 Type: StatusFeedbackArea<br>Data 3: <b>State Machine F Manages sequences of operations in<br/>support of multiple simultaneous, Netlist Distributions</b> Data3<br>Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort |
| 72D6 | 29398 | NETX state<br>machine F state<br>03 Arrival | NET[MCU] | Normal | Data 1: <b>Runner Number for non-runner source devices</b> Data1<br>Type: RunnerNumber<br>Data 2: <b>This state waits for the arrival of all required Activation<br/>Runners then applies the new Feeder Net to NETV and DAT</b><br>Data2 Type: StatusFeedbackArea<br>Data 3: <b>State Machine F Manages sequences of operations in<br/>support of multiple simultaneous, Netlist Distributions</b> Data3<br>Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort |
| 72D7 | 29399 | NETX state<br>machine F state<br>04 Arrival | NET[MCU] | Normal | Data 1: <b>Runner Number for non-runner source devices</b> Data1<br>Type: RunnerNumber<br>Data 2: <b>Releases our claim on PushingHoldoff, then waits for all<br/>appropriate runners to have returned,then Analyzes to see if<br/>this is a runner source, lists Runners if yes, checks RSD<br/>Registration</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>State Machine F Manages sequences of operations in</b>                                                           |

## Definitions of Historic Events

|      |       |                                          |          |        |                                                                                                                                                                                                                                                                                                                                                                                                            |
|------|-------|------------------------------------------|----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                          |          |        | <b>support of multiple simultaneous, Netlist Distributions</b> Data3 Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                                                                                                                                    |
| 72D8 | 29400 | NETX state machF state 04 runner source  | NET[MCU] | Normal | NETX state machine F state 04 runner source<br><br>Data 1: <b>Runner Source Device</b> Data1 Type: RSD<br>Data 2: <b>Null</b> Data2 Type: ushort<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                                       |
| 72DA | 29402 | NETX state machine G state 01 Arrival    | NET[MCU] | Normal | Data 1: <b>Null</b> Data1 Type: ushort<br>Data 2: <b>State Machine G Manages sequences of operations in support of Sending of Feeder Net Deployment Runner Objects. State 1 is the IdleState</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>Null</b> Data3 Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                            |
| 72DB | 29403 | NETx state machine G state 01 deployment | NET[MCU] | Normal | Data 1: <b>Incoming number of teams</b> Data1 Type: INCNUMTEAM<br>Data 2: <b>Number of netlist runners</b> Data2 Type: NETLISTRNR<br>Data 3: <b>Feeder Net ID from IntelliTeam Designer</b> Data3 Type: FeederNetID<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                              |
| 72DC | 29404 | NETX state machine G state 02 Arrival    | NET[MCU] | Normal | Data 1: <b>Null</b> Data1 Type: ushort<br>Data 2: <b>G State 2 Creates and sends (store object) until the runner-list required number of runners has been sent</b> Data2 Type: StatusFeedbackArea<br>Data 3: <b>State Machine G Manages sequences of operations in support of Sending of Feeder Net Deployment Runner Objects</b> Data3 Type: StatusFeedbackArea<br>Data 4: <b>Null</b> Data4 Type: ushort |
| 72DD | 29405 | NETX state machG state02 store object    | NET[MCU] | Normal | NETX state machine G state 02 store object<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Data Length</b> Data3 Type: DataLength<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                |
| 72E1 | 29409 | NETX state machH state02 storage ok      | NET[MCU] | Normal | NETX state machine H state 02 storage ok<br><br>Data 1: <b>Runner Number</b> Data1 Type: RunnerNumber<br>Data 2: <b>Destination RTU Address</b> Data2 Type: RTUAddress<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                 |
| 72E6 | 29414 | NETX too many in Netview row             | NET[MCU] | Normal | NETX too many in Netview row (would overflow)<br><br>Data 1: <b>Current row number</b> Data1 Type: ushort<br>Data 2: <b>Null</b> Data2 Type: ushort<br>Data 3: <b>Null</b> Data3 Type: ushort<br>Data 4: <b>Null</b> Data4 Type: ushort                                                                                                                                                                    |
| 72E7 | 29415 | NETX too many Netview columns            | NET[MCU] | Normal | Data 1: <b>Current row number</b> Data1 Type: ushort<br>Data 2: <b>Null</b> Data2 Type: ushort                                                                                                                                                                                                                                                                                                             |

|      |       |                                         |          |        |                                                                                                                                                                                                                                                               |
|------|-------|-----------------------------------------|----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      |       |                                         |          |        | Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                                                                                                              |
| 72E8 | 29416 | Overflow the device instance table      | NET[MCU] | Normal | Data 1: <b>Device Type</b> Data1 Type: dev<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                              |
| 72E9 | 29417 | NETX too many substations in Feeder Net | NET[MCU] | Normal | Would overflow<br>Data 1: <b>Number of team record</b> Data1 Type: nt<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                   |
| 72EA | 29418 | NETX too many netx devices              | NET[MCU] | Normal | Data 1:Null Data1 Type: ushort<br>Data 2: <b>Number of device connection present,counter,list length</b><br>Data2 Type: nsngl<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                             |
| 72EB | 29419 | NETX too many netx columns              | NET[MCU] | Normal | If Data4 is 4 then data 1 would be the deviceCountTotal<br>Data 1:Null Data1 Type: ushort<br>Data 2: <b>Number of device connection present,counter,list length</b><br>Data2 Type: nsngl<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort  |
| 72EC | 29420 | NETX too many netx rows                 | NET[MCU] | Normal | If Data4 is 10 then data 1 would be the deviceCountTotal<br>Data 1:Null Data1 Type: ushort<br>Data 2: <b>Number of device connection present,counter,list length</b><br>Data2 Type: nsngl<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort |
| 72ED | 29421 | NETX too many NETV rows                 | NET[MCU] | Normal | Data 1: <b>Current row number</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                    |
| 72EE | 29422 | NETX too many DGs in Feeder Net         | NET[MCU] | Normal | Data 1: <b>Current row number</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                    |
| 72EF | 29423 | NETX found DG in Feeder Net             | NET[MCU] | Normal | Data 1: <b>Current row number</b> Data1 Type: ushort<br>Data 2:Null Data2 Type: ushort<br>Data 3:Null Data3 Type: ushort<br>Data 4:Null Data4 Type: ushort                                                                                                    |