



IntelliTeam® CNMS makes radio network management easy, even for a large number of networked grid devices

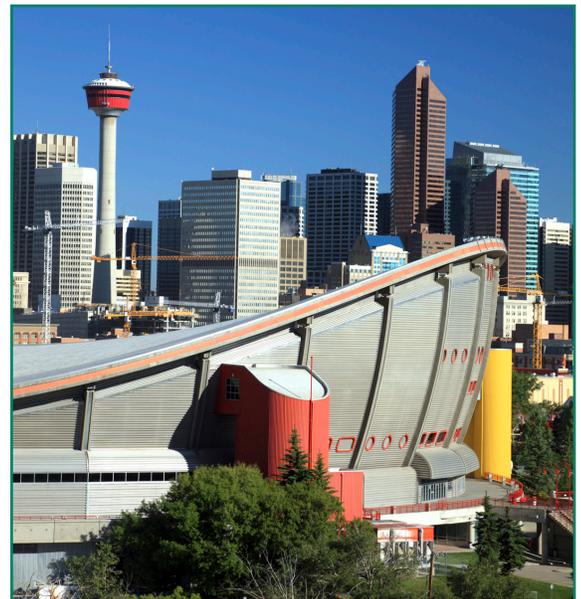
S&C Featured Solution: IntelliTeam® CNMS Communication Network Management System

Location: Calgary, Alberta, Canada

CUSTOMER CHALLENGE

Calgary—with over one million people—is the third-largest city in Canada. Its power grid, served by ENMAX, features an S&C IntelliTeam® II Automatic Restoration System utilizing automated grid devices, including S&C IntelliRupter® PulseClosers. Using peer-to-peer radio communication with distributed intelligence, IntelliTeam II tracks grid conditions and quickly initiates service restoration after permanent fault conditions result in a protective device lockout.

ENMAX needed a dependable network management system to ensure reliable communication between their 500+ S&C SpeedNet™ Radios blanketing Calgary. S&C's communications experts proposed the IntelliTeam Communication Network Management System to provide real-time, web-based monitoring and management of the radios.



S&C SOLUTION

ENMAX decided to implement the IntelliTeam CNMS Communication Network Management System solution. The IntelliTeam CNMS Server was up and running immediately. Misconfigured radios were detected within minutes, and actions initiated to remedy the situation.

ENMAX personnel soon came to rely on IntelliTeam CNMS and its powerful features. IntelliTeam CNMS offers:

- **Time Savings**—provides quick, efficient discovery of radio configurations, and real-time monitoring of RF and Ethernet interfaces. It instantly generates reports detailing network performance metrics
- **Customizable Dashboards**—has configurable dashboards that display real-time and historical interface statistics and availability
- **History of Alarms / Radio History**—records the poll results from each radio. It measures the performance of each radio versus a user-defined baseline, and generates alarms based on configured thresholds
- **Location and Route Viewing.** Deployment View shows the locations of radios and lets you view links, hops, and routes
- **Filtering.** The CNMS List Views/Tabs support user-defined filters, helping summarize results to a desired subset.

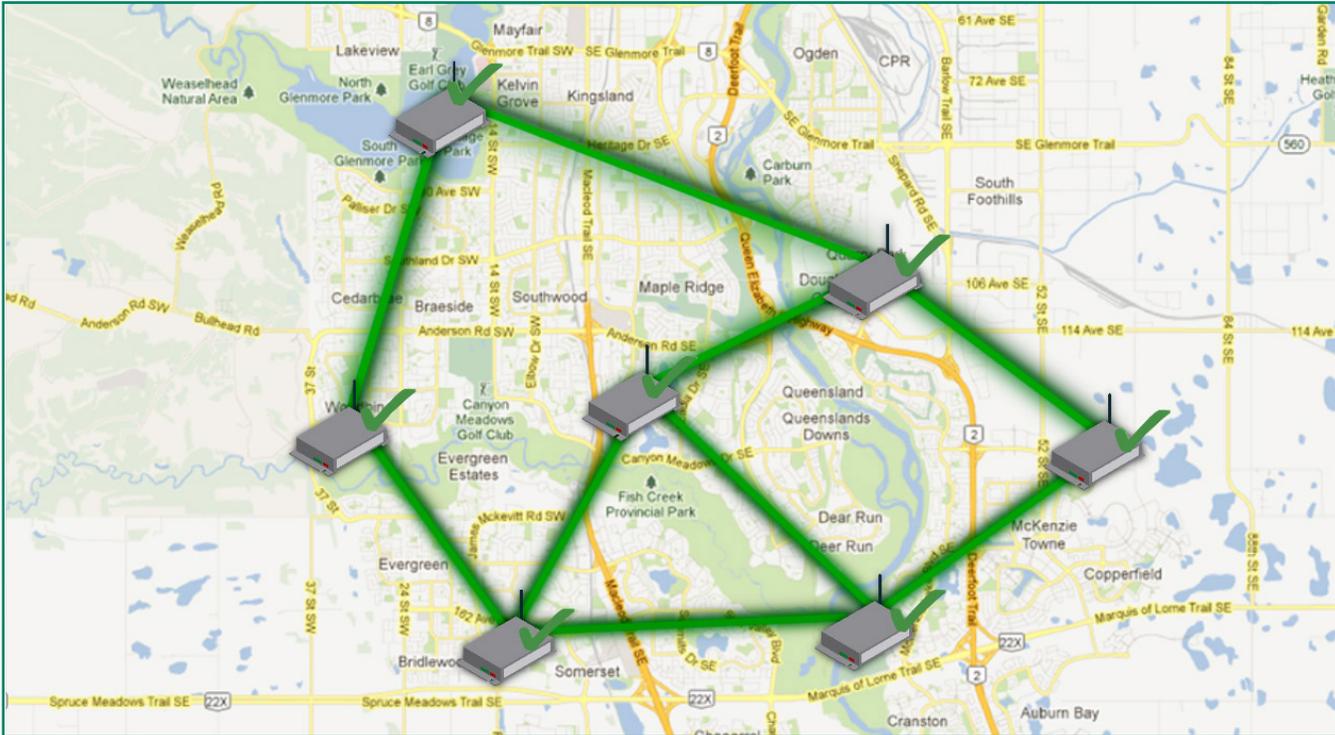
Easy-to-use IntelliTeam CNMS features a familiar browser-based interface with intuitive navigation. Setup and commissioning are fast and efficient.

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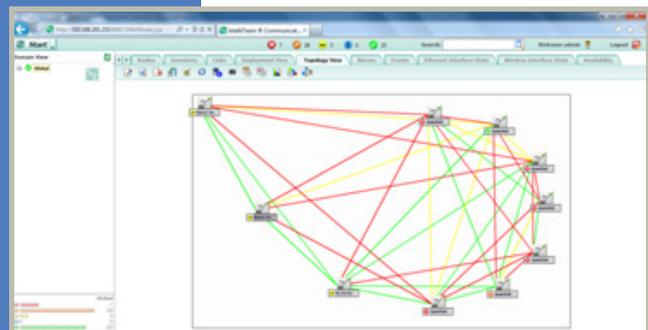
DEPLOYMENT VIEW



VOICE OF THE CUSTOMER

"We were also able to determine that the battery for the repeater radio had failed which is why it was unreachable. This may all seem straightforward but the important factor is that this entire process took a total of five minutes. If we had tried to determine this using the old method not only would it have taken at least 30 minutes to go through each neighbor of the radio, check the signal strength, run a trace route and then draw it on a map. We would also have been unclear as to the cause of the repeater radio's failure and how long it had been out of service."

—ENMAX Project Management Team



VALUED OUTCOME

ENMAX calculates that the potent combination of S&C's IntelliTeam II, IntelliTeam CNMS, IntelliRupter Pulse Closers and SpeedNet Radios achieved a 21.4% reduction in Customer Minutes of Interruption (CMI) of unscheduled interruptions. This represents a significant reliability improvement for Calgary residents and businesses.

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