NETWORK INNOVATIONS

CASE STUDY

EMERGENCY PREPAREDNESS: BACK UP CONNECTIVITY FOR UTILITIES VIA SATELLITE

Bruce Power overcame emergency preparedness challenges with a satellite connectivity solution

Meeting Your Mission. With Passion.

THE CHALLENGE

When disasters strike, utilities depend on communications networks to meet reliability and capability requirements. However, in extreme cases, communications infrastructure can be threatened by exposure to natural disasters, cyber intrusion, and its reliance on the grid for power.

Bruce Power provides emission-free, low-cost, reliable electricity to Ontario families and businesses, keeping air clean and their people, communities, and environment safe. When carrying out work so critical, they need to be prepared for all types of emergency events, including the unlikely event of a nuclear emergency.

> "Network Innovations delivered a solution within tight timescales so that Bruce Power could meet a regulatory requirement."
> **Steve Thompson, Department Manager, Emergency Management at Bruce Power**

Bruce Power strives to be an industry leader in emergency preparedness, with the effectiveness of their emergency response program being continually assessed through a series of drills and exercises. The Canadian Nuclear Safety Commission (CNSC) requires that utilities have three means of contacting off site agencies from their emergency operations centers in the event of a major crisis. Bruce Power had two in place and required a third.

Their emergency management team needed a critical line of back up communication from their command center, enabling them to gain contact with government agencies should all other forms of connectivity go down.

THE SOLUTION

In 2016, the Police, working with a local communications partner, took steps to provide connectivity. The teams designed fixed telephone/radio boxes that were installed in rescue cabins throughout the area, but they still faced the obstacle of supplying a dedicated and reliable voice communication connection. To overcome this problem, Network Innovations (NI) was contacted and joined in creating a solution.

Network Innovations understood the challenges and integrated always-available satellite communication connectivity into the telephone/radio boxes. NI installed the Iridium 9523 modem, linking the receiver handsets, enabling calls that could be initiated with the push of a button. The modem produces a clear and fast satellite communication's link for anyone who requires emergency support.

Convinced by the capabilities of Network Innovations' solution, the satellite modems and accessories were expanded into additional safety cabins in the affected regions enhancing rescue operations with aid and relief to explorers in crisis. The telephone/radio cabins are now ready for use around the clock and the Iridium modems consume reduced power when disengaged via a programmable 'sleep mode' timer.

THE RESULTS

Within the year, Network Innovations delivered their satellite solution which was installed in Bruce Power's emergency operations centers. NI worked closely with Bruce Power to build and provide an end-to-end solution, from discussing the requirements to sourcing, delivering, and testing the equipment.

Bruce Power are now even better equipped and prepared to protect their people, their plants, the community, and the environment, and are prepared for all types of possible emergency events with fail-safe communications they can rely on. CNSC requirements and certifications have been met.

Bruce Power Emergency Exercise: Huron Resilience 2019

> "The satellite communication was installed in the emergency operations centres of two nuclear generating stations with the satellite dishes located on the roof of the buildings. The satellite comms system also had a guaranteed 8 hour battery back up system."
> **Steve Thompson, Department Manager, Emergency Management at Bruce Power**