

MoDOT teamed with Orbital Data Net (ODN), the Missouri state contractor for satellite services, and Spacenet – The iNetVu® Solution

Introduction



Over a period of time, high-visibility disasters have fueled awareness about the importance of managing and mitigating their consequences effectively. First responder organizations and public safety agencies are focusing more and more on improving the ability to keep communicating in the face of emergency situations. In 2008, the Missouri Department of Transportation (MoDOT) dealt with disastrous situations including major flooding and ice

storms in the Midwest. In order to insure better public safety, MoDOT was seeking to expand its emergency communications network.

Problem Statement

MoDOT needed a comprehensive and reliable backup and emergency communications system to ensure that critical communications always stay online and to enable coordination with other agencies and support on-site personnel. In addition, it needed a solution with the capability to tie its radio bridges together and seamlessly provide mixed backhaul when terrestrial lines were down, without compromising their ability to deliver full network interoperability.

This project required an upgraded communications solution that could support its full range of requirements, including support for converged VoIP (Voice over IP), RoIP (Radio over IP), video, data and radio backhaul. The system needed to be mobile, independent of terrestrial networks, provide interoperability between state agencies as well as access to the PSTN to integrate efforts with FEMA or other federal agencies. In other words, it needed a solution that was easy to manage, deploy and operate, and would be cost effective due to tight budget constraints.



The iNetVu® Solution

MoDOT teamed with Orbital Data Net (ODN), the Missouri state contractor for satellite services, and Spacenet, a leading provider of satellite networking services, to find and implement a reliable solution for the emergency network. After testing other leading satellite solution providers, the customer realized that many of the solutions were too costly, or just didn't work properly, and none of them supported all of their requirements. Since ODN had been a C-COM iNetVu reseller for over four years and had complete confidence in the capabilities and reliability of the iNetVu products, the iNetVu antenna systems were recommended for this project.



1.2m iNetVu mobile antenna systems were installed that supported full Voice over IP (VoIP) and Radio over IP (RoIP) capabilities with Quality of Service (QoS), Internet access, and could interface with trunked radio systems and analog systems. As per MoDOT, the solution enables seamless transmission capabilities and control to communicate and interconnect remote tower sites by satellite, and made interoperability with legacy radio systems possible. With this, the emergency network can be operated and controlled from virtually any location that has access to a high-speed Internet connection, enabling communications over radio across the world.

Since the project's implementation, the iNetVu antenna system has been put to use numerous times for real-time deployments, and consistently allowed the emergency response units to communicate effectively and perform at peak efficiency. The system has been used to support numerous government agencies including police and fire departments, city governments and the military.

Conclusion

With damaged terrestrial networks and with cellular towers down, the iNetVu solution provides a transportable and rapidly deployable satellite network to local communities. The iNetVu technology helped provide easy and quick response that enabled reliable radio transmissions and working voice services to support critical and time-sensitive conference calls for coordinating the relief efforts.

Similar to the use of iNetVu in the state of Louisiana, providing reliable communications to deal with the aftermath of Hurricane Katrina, the advanced iNetVu solution provided numerous benefits to MoDOT as well. The iNetVu technology enabled an easy to deploy, versatile, and scalable transportable solution that supported all of its required applications. The solution is critical for public safety measures, providing a high reliability communications system in the case of any crisis or disaster.