

Benton County, Washington

Emergency Management Gets Connected Using WAVE

“Thanks to the WAVE-powered unit, we have unprecedented peace of mind and confidence in our emergency response capabilities. The technology has changed the way our personnel think about communications.”

— Valerie Eveland
800MHz System Manager/Technical Systems Coordinator
Benton County Emergency Services

The Challenge

On June 27, 2000, a fiery car accident sparked a blaze in Benton County, Washington, near the Hanford Nuclear Site. Two days later, the fire had destroyed at least 73 structures and nearly 200,000 acres. Highways were closed and hundreds of homes were evacuated. The fire seriously threatened a federal facility storing radioactive waste. For five days, a federal declaration of disaster was issued for the Benton County area.

As this disastrous fire raged, public safety and emergency responders from state and federal agencies faced communications obstacles they were not equipped to overcome. Because of their inability to communicate across agencies and departments, their ability to fight the disaster was severely compromised.

At the time, the fire and police department, public utility district, public works agencies and five area hospitals all utilized an 800MHz simulcast trunked radio system. Lack of enough 800MHz radio equipment for first responders and poor coordination with VHF and UHF systems from various outside agencies, departments and surrounding jurisdictions, created a dangerously disconnected emergency response system.

After the devastating fire in the summer of 2000, the Benton County Emergency Management team committed to find the most effective, scalable, reliable communications interoperability solution—all on a public county budget.

The Solution

After thorough evaluation of every viable option, the Benton County Emergency Management Team selected WAVE because of its ability to connect any communications signal to the existing IP Network and flawlessly manage communications over that network between an unlimited number of devices. It was crucial to find a solution that would allow them to link together hundreds of responders from multiple agencies, for real-time communication at any moment.

“The ability of WAVE to act as a central switchboard and connect all of our existing devices really impressed us,” says Valerie Eveland, 800MHz System Manager/Technical Systems Coordinator for Benton County Emergency Services. “WAVE seamlessly manages communications between all of our devices in a secure, reliable environment. Not having to replace any of our existing devices saved us millions of dollars versus other solutions, and we got a more effective, more capable product.”

Benton County’s various agencies are now connected to first responders and outside agencies no matter what communications devices they use thanks to a WAVE-powered, mobile communications unit, which was unveiled in Benton County in February 2006.

The rugged unit allows for the flexibility of operating communications and response in an emergency virtually anywhere. The unit has satellite data and telecommunications, a mobile PBX for 911 and EOC communications as well as the necessary components to patch radio communications between various systems. Four workstations within the mobile unit provide all the necessary elements for telecommunications, video, GIS and data communications. A mobile Emergency Alert System and mobile CSEPP (Chemical Stockpile Emergency Preparedness Program) Siren Unit, means that Benton County is poised and ready should a large-scale emergency strike in the future.

Already, the mobile command unit has been used by the Department of Energy and CSEPP for exercises and SWAT training.

“We are delighted with our unit and the capabilities it gives us,” says Valerie, “and the people and families of our County are safer as a result—and that’s what really matters.”

Find Out More

If you would like to learn more about WAVE software technology and the innovative communications solutions built around it, visit us at www.twistedpair.com.



- Standards based solution works with existing radios—and signals from any source—with no additional spectrum needed
- Supports integration with almost any audio device, including phones, PCs, and two-way radio systems
- Scales to an unlimited number of users
- Delivers survivability features, including autonomous offline operations, peer-to-peer communications and automatic failover
- Supports high levels of security with VoIP and network control traffic encryption, PIN-based user authentication and Active Directory
- Built-in recording and replay capabilities
- Standards based, not proprietary

About Twisted Pair Solutions

Twisted Pair Solution's award-winning WAVE software technology enables partners and customers to build and operate secure, highly scalable communications solutions in the world's most demanding environments. Recognizing that the best approach to solving the complexities of communications interoperability is to use standards-based software to unify diverse communications technologies, WAVE is trusted when communications is absolutely indispensable. Twisted Pair Solutions is headquartered in Seattle, Washington, USA with offices in the United Kingdom and Australia.

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