



# Case Study

Cumberland County, Tennessee

## SITE

The picturesque Cumberland Mountains in Cumberland County, Tennessee present a challenging terrain for radio communications. The same peaks and valleys that make the area so inviting to vacationers, golf enthusiasts and residents are a hindrance to old-fashioned analog radio waves.

When Cumberland County's Emergency Services Committee began searching to find a replacement for their old communications system, they knew that the solution they selected would have to overcome some steep obstacles. In particular, the Committee wanted a solution that would provide interoperability along with expanded coverage throughout the entire region, and would also be capable of resolving the County's portable radio inventory issues.

## SOLUTION

Selected as the solution provider, the P25 Land Mobile Radio (LMR) business unit of PlantCML, an EADS North America Company, designed and deployed a single 5-site 4-channel (1 control and 3 voice) COR<sup>P25</sup> digital trunked system to replace the multiple VHF systems the County had been using. The COR<sup>P25</sup> system, unanimously accepted by the County's Emergency Services Committee in July 2009, delivered the interoperability and flexibility the County required and increased service coverage from 80% to >95%, reaching nearly every corner of the County.

In addition to the P25 compliant radio system, the COR<sup>P25</sup> solution also included an interface to the County's existing analog Zetron console system, SNMP network management, as well as subscriber units from Kenwood. The COR<sup>P25</sup> system will also interface to the new Zetron Acom - Advanced Communication Console System currently being installed. Dispatchers now have radio access to UHF P25, VHF conventional or both and all-County agencies are supported with over 90 talk groups. PlantCML further committed to a three-year technology development plan for the system.

"Cumberland County is very important to us and LMR is going to showcase this system," said Chuck Sackley, Vice President and General Manager, Land Mobile Radio. "We will be bringing people here to see this radio system."

"If they (PlantCML) can make a system work here, they can make it work anywhere," said Cumberland County Sheriff Butch Burgess in discussing how impressed he was with the solution.

"Incorporating the legacy VHF Conventional network, the multi-vendor product integration, and the unique coverage issues of Cumberland County were all significant challenges for PlantCML, as they would have been for any systems integrator," said Bruce Rhoades, Director of Public Safety & Municipal Networks for WATERFORD Consultants. "My hat's off to PlantCML, as they addressed all of these challenges and demonstrated a phenomenal commitment to the ultimate satisfaction of the County."

The multi-site system is designed to optimize coverage across the varied terrain of the County for the following users:

Sheriff's Department	Rescue Squad
Correctional Facility	Emergency Management Agency
Fire Department	Emergency Medical Services

The EADS COR<sup>P25</sup> system is an open, standards compliant digital trunked radio system that fully embraces the P25 goals of vendor and network interoperability, lower cost of ownership and a migration path to new technologies. The software-driven nature of the COR<sup>P25</sup> provides exceptional flexibility, enabling the addition of new features and capabilities without the use of a forklift; the fully IP core provides unparalleled reliability by eliminating single points of failure; and together they make it possible for COR<sup>P25</sup> to scale from a single site to a system of systems without changing platforms.



## KEY BENEFITS

- **EADS COR<sup>P25</sup> is adaptable:** its open, standards-compliant nature enables Public Safety Agencies to select components from multiple vendors, including subscriber units, creating a "best in class" network that is tailored to address the specific needs of the agency at a cost the community can afford.
- **EADS COR<sup>P25</sup> is flexible:** a single site system can be employed, with additional sites added later, a single EADS COR<sup>P25</sup> system can be configured to support subscriber units in all public safety frequency bands and its repeaters can be configured for simulcast and voting configurations.
- **EADS COR<sup>P25</sup> is simple:** its software-centric, native IP architecture enables a straightforward migration to next-generation communication requirements.

## KEY FEATURES

- Cost effective P25 "System of Systems" architecture for city, county, regional & statewide networks
- Reliable multi-site, simulcast, and multi-agency configurations
- Autonomy and control of your system within an interoperable framework
- Enhanced coverage through a reliable IP simulcast solution
- Redundant architecture that enables a graceful degradation of service, as opposed to a system failure.

## THE INDUSTRY LEADER

A pioneer and trusted leader in mission critical communications, PlantCML<sup>®</sup>, an EADS North America company, provides key technologies for public safety, federal and corporate markets. Our full-circle security and communications portfolio includes 9-1-1 call center CTI applications for call processing, CAD, mapping and information management, as well as managed services, notification solutions and services and P25 Land Mobile Radio networks. Headquartered in Temecula, California.

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COR<sup>P25</sup> gives Cumberland County clear, expanded and coordinated communications between the sheriff's department, two fire departments, the rescue squad, local correctional facility, emergency medical services and emergency management.

# PLANTCML<sup>®</sup>

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