

## Emergency Dispatch

# Cutting-Edge Acom Connects Cumberland to County-Wide P25 Network

## Flexible New System Supports Both Conventional VHF and P25 Equipment



Cumberland County, Tennessee, is something of a study in contrasts. While the area is known for its waterfalls, rolling hills and some of the best golf courses in Tennessee, it also boasts one of the most forward-looking and technologically advanced public safety communications systems in the nation. The system includes a county-wide, APCO Project 25 (P25) digital radio network as well as a state-of-the-art, digital dispatch console system that interfaces directly to the network. It is a system designed not only to meet Cumberland County's needs now, but to also serve them well into the future.

### Cumberland County 9-1-1

Cumberland County covers an area of approximately 685 square miles and has a population of about 50,000.

The Cumberland County 9-1-1/Dispatch Center is the county's sole public safety answering point (PSAP). As such, the center answers all 9-1-1 calls for the county and the cities of Crossville, Pleasant Hill and Crab Orchard, and also provides dispatching for all emergency response agencies in the county.

Although the 9-1-1 center is owned and maintained by the 9-1-1 Emergency Communications District (ECD 9-1-1 Board), the County, the City of Crossville and the ECD 9-1-1 Board are all equal partners in the center's operations and share in its operational funding.

### P25 for Cumberland County

The project to update Cumberland County's public safety communications began when PlantCML, an EADS North America Company, was chosen to provide

Cumberland County with a county-wide, P25 land mobile radio (LMR) radio network.

"They were looking for an updated system that would improve their coverage and interoperability," says EADS project manager, Mark Consentino. "So we provided them with a platform that would allow them to migrate from their multi-agency, analog radio architecture to our CORP25 digital trunked radio system."

The project subsequently expanded to include Zetron's Advanced Communication System (Acom).

"EADS offered us a discounted Acom dispatch console system to go with their P25 radio network," says Cumberland County 9-1-1 director, Bill Hunter. "It made sense for the 9-1-1 district to pay for and own the dispatch console system because it would be housed in the 9-1-1 center."

### Why Acom?

There were a number of reasons why Acom was chosen for the project. Cumberland County 9-1-1 had been running Zetron dispatch and 9-1-1 call-taking equipment for many years, and they were very pleased with both systems' performance. So when the opportunity arose for them to obtain Zetron's state-of-the-art Acom console, they jumped at the chance.

"We've been thoroughly satisfied with our Zetron equipment and its reliability and maintainability," says Hunter. "I can't think of any other product I'd want to have for my consoles. Reliability is critically important to

us, and our Zetron dispatch console is the most reliable piece of hardware we've ever owned. The only thing I ever had to replace on it in ten years was one stuck button. When we were offered the Acom, it was a great deal on leading-edge technology that's going to solve a lot of our problems. We couldn't turn it down."

### **Cartwright Communication Technology**

In their contract for the Acom system, Cumberland 9-1-1 stipulated that their long-time systems and service provider, Cartwright Communication Technology, would install it.

Based in Knoxville, Tennessee, Cartwright Communication Technology sells and services wireless communication systems for business, industry, government and public safety agencies throughout their region. Over the years, they have been a consistent top-ten Zetron reseller.

"We chose Cartwright Communication Technology to install and maintain our new Acom system because we've been dealing with them and Zetron products since 1998," says Hunter. "We've been very happy with the service we've gotten from them."

### **Configurable, redundant**

Cartwright Communication Technology president Louis Cartwright says that he's a fan of the Acom system. "I don't think there's another console like it," he says. "I like Acom's completely configurable GUI interface. There's nothing that I haven't been able to make that interface do. I also like the built-in redundancy of the CCE [common control equipment]."

Cartwright goes on to say that Acom would also be able to connect to Cumberland County's EADS COR<sup>P25</sup> network through the open-standards P25 Console Subsystem Interface, or CSSI.

"This would give them a direct interface to the network," he says. "It would also give the console control over the traffic going out."

### **The CSSI**

From an industry perspective, a major advantage of the CSSI is that it defines a standard interface between the console and the Radio Frequency Subsystem (RFSS). This gives customers more choice in their selection of consoles and encourages competition among manufacturers. Thus the CSSI is a significant boon to those in the field of public safety for whom cost, equipment compatibility and interoperability among agencies are critical concerns.

### **Legacy support**

Yet another important aspect of Cumberland County 9-1-1's Acom console is that it is able to support existing

VHF conventional equipment that must be maintained for agencies that are not yet on the P25 system. "This gives Cumberland County a solution that's flexible and supports legacy equipment until all of their agencies have completed the transition to P25," says Cartwright.

### **Implementation and training**

The Acom system was implemented through a series of well-planned steps.

"We first staged the system in our office," says Cartwright. "Then we took it to Cumberland and put the common control equipment in the back room and the positions in their EOC [Emergency Operations Center] so we could test the new system and train everyone on it without disrupting their operations. After everything was working properly, we moved each position one at a time into the 9-1-1 center. We'd take down a position of the previous system and then bring up the Acom workstation in its place. Once we got that workstation running, we'd go to the next. We repeated that process until all of the new Acom positions were installed."

"It was one of the best equipment rollouts I've ever seen," adds Hunter.

Hunter says that training on the new Acom was also quick and relatively easy. "There was a zero learning curve because the user interface is so intuitive," he says. "We had really good training from Zetron. The dispatchers were also accustomed to Zetron consoles from having used them before. They just sat down at the new positions and started using them."

### **Robust, reliable, cutting edge**

Cumberland 9-1-1's new Acom went live in September of 2010. The customer has nothing but praise for the new system and those who helped install it.

"I can't speak highly enough of the quality of work we got from Cartwright and Zetron," says Hunter. "Zetron's engineer talked to the dispatchers about what they liked and didn't like and whether there were any bugs or glitches. And it went so quickly – the time from staging the system at Cartwright's office to completing the installation in the center was just three weeks. That kind of turnaround is unbelievable."

"We really like Acom's scalability, configurability and redundancy," Hunter continues. "It's robust and reliable. And it's cutting edge, totally expandable, and software upgradable. We plan to use it for years to come. I tell everyone they can have my Zetron console when they pry it from my cold dead fingers." ■

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