Case Study

MAX Call-Taking Prepares PSAP for Next-Generation 9-1-1



With its new installation of Zetron's IP-based MAX Call-Taking system, Lake County, Tennessee's 9-1-1 center is ahead of most of the country in its readiness to handle Next-Generation 9-1-1 communications.

Although the nation's 9-1-1 system has functioned successfully for more than 40 years, it's now on the verge of a major change. The system is designed around older, analog telephone technology and is simply not built to handle the rich and varied wireless communications—text messages, email, photos, videos and social-media posts—that are becoming increasingly common in personal and business communications.

The National Emergency Number Association (NENA) is spearheading an initiative to rectify this situation. Dubbed Next-Generation (Next-Gen or NG) 9-1-1, its goal is to develop a nationwide, IP-based 9-1-1 infrastructure that will support existing and emerging wireless forms of communication. Public-safety answering points (PSAPs) throughout the country are preparing to adopt equipment capable of utilizing this new infrastructure once it's in place. And a small 9-1-1 center in Tennessee has just become an unlikely poster child for this effort. With their new installation of Zetron's IP-based MAX Call-Taking System, Lake County 9-1-1 is poised to move into the brave new world of next-generation communications.

Lake County, Tennessee

Tucked into the far-northwestern corner of Tennessee, Lake County covers roughly 194 square miles and has a population of about 7,200. Its main industries are agriculture and tourism.

Lake County 9-1-1

Lake County 9-1-1 answers the area's 9-1-1 calls, provides dispatching for the sheriff's office and other county public-safety agencies, and answers administrative calls for the fire department.



Lake County has not historically been an early adopter of new communications technologies. "Lake is a small, rural county with a small tax base," says Lake County Emergency Communications District director, Doug Robertson. "So we haven't had much of an opportunity to modernize our equipment. I think we were one of the last counties in Tennessee to adopt 9-1-1."

This is changing.

Tennessee leads the way

The state of Tennessee is one of the most advanced in the nation when it comes to preparing for NG9-1-1. It is deep into the development of a statewide NG9-1-1 i3 network known as NetTN. Tennessee's PSAPs are being encouraged to upgrade to equipment that will be able to connect to this network, and the state has made funds available to help them do so. Because of the momentum of this effort, availability of funding, and a need for updated equipment, Lake County decided that the time was right for them to get on board with NG9-1-1 equipment. They also had considerable support and involvement from Lake County Sheriff, Bryan Avery. The project got underway to find a new, IP-based 9-1-1 call-taking solution that would help them prepare for NG9-1-1.

Selecting a new system

Soon after Lake County issued a request for proposals, a solution submitted by one of their existing vendors, GeoConex, became one of several top contenders. It featured Zetron's MAX Call-Taking system and GeoConex's computeraided dispatch (CAD) system.

"We invited everyone from jailers and dispatchers to administrators to help choose the equipment," says Doug Robertson. "We encouraged them to pick the very best equipment possible because it might be the last equipment we purchase for a while. When they saw the GeoConex solution with Zetron's MAX system, it became everyone's first choice. Not only is it very user friendly, but it will be easy for us to upgrade and adapt in the future."

The MAX Call-Taking solution they chose includes:

- Two Windows-based workstations and console software.
- Two CAMA gateways.
- One analog VoIP gateway for answering non-9-1-1 calls for the fire department.
- Session Initiation Protocol (SIP) telephones and related devices.

Zetron Americas

• GeoConex's computer aided dispatch (CAD) system.

Implementation

The implementation began with pre-staging and programming the MAX Call-Taking system in GeoConex's facility. The goal was to do as much preparatory work as possible to minimize any disruption the final installation might cause at the customer's site. They then moved the system to the PSAP and installed it, running it in parallel with the existing system until the new system's fine-tuning was complete.

On-site and remote support

Josh Rosen, lead engineer for GeoConex, says Zetron provided critical support throughout this process.

"Someone from Zetron was connected to the system remotely during the entire install," says Rosen. "This was very helpful because software configurations could be applied quickly over the remote connection."

Easing the transition

One goal of implementation was to set up the new system's user interface (UI) so dispatchers would be able interact with it much as they had their previous system.

"We analyzed their procedures then translated them to the MAX UI," says Rosen. "As a result, the only difference between the old and new system is that instead of picking up a phone, they click a mouse. The steps to complete a task are also very much like they were on the old system."

GeoConex's CFO, Ken Murphy, says they took advantage of the MAX Call-Taking system's ability to bridge the gap between old and new technology.

"The MAX system will use Lake County's existing CAMA trunks until Tennessee rolls out its NetTN i3 network in the near future," he says. "The state's plan is to start by handling cell calls over the new network. We'll provide Lake County with additional, dedicated wireless lines when the network is ready, and they'll be able to start taking wireless calls over the new network."

'On the cutting edge'

Lake County's MAX Call-Taking system has been up and running since mid-May of 2012. And Doug Robertson is very proud of the project. "Our new equipment makes everyone's jobs easier, from the dispatchers to the sheriff," he says. "It's a good investment for the county. With our new MAX system, we've got some of the very best equipment on the market. Now we're on the cutting edge."



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