



ADVANTAGE

MISSION-CRITICAL COMMUNICATION SYSTEMS

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Photo courtesy of John Rayfield, Jr.

Backup PSAP Strikes the Right Chord for Nixa, Missouri

Dispatchers Sing the Praises of Zetron's Series 4000 and Model 3200

Residents of Nixa, Missouri identify closely with the country music for which nearby Branson is famous. So when asked what makes their region unique, country music is likely to be the first thing they mention. Bass fishing is a close second. But the effectiveness of the community's emergency communications is also a topic that is near and dear to those who oversee Nixa's public safety. They are the ones who must make sure that appropriate systems are in place to handle all kinds of emergencies, even if any of the Public Safety Answering Points (PSAPs) in the area becomes unusable for any reason.

The city of Nixa's primary PSAP, located in the Nixa Police Department, provides dispatching for both the police and the Nixa Fire Protection District. But until December of 2006, there was no backup for this or any of the other PSAPs in the county. So if any of the PSAPs went down, all they had to fall back on were a few two-way radios.

To remedy this situation, the Nixa Fire Protection District decided to create a new backup PSAP at their Fire Protection District office. Rayfield Communications and Zetron helped them devise a solution based on the Zetron Series 4000 Radio Dispatch Communication Control System and the Zetron Model 3200 E9-1-1 Telephone System. The backup, which was completed in January of 2007, is currently serving as the main PSAP for Nixa. So far, it's getting rave reviews from everyone involved.

Hand-me-down solution is nixed for Nixa

When the Nixa Fire Protection District decided to create a new backup PSAP, they first thought they might be able to use a system the Police Department had replaced with new equipment. But it didn't take long for them to realize that this wasn't going to work. "The manufacturer no longer supports the

old equipment," says Rance Duffy, Nixa Fire Protection District Battalion Chief. "They wouldn't replace or fix a part that failed. We simply couldn't afford to rely on equipment that might not work when we need it."

The Fire Protection District applied for and obtained federal grant money, then enlisted Rayfield Communications to help select, purchase and install new equipment for their backup.

Nothing but the best

Based in Springfield, Missouri, Rayfield Communications has been designing, implementing and servicing communications systems for almost 30 years. This has included two-way radio

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Photo courtesy of John Rayfield, Jr.

PUBLIC SAFETY



Simpler Is Better for Ambulance Dispatch

DVA Speeds to the Scene with Zetron's Model 4010

An ambulance company's communications system is at the very heart of its operations. It is the central point through which emergency dispatch calls are received and managed, and help is sent to the scene. It's easy to see why speed, reliability and efficiency are important requirements of such systems—more than a message can be lost if the communications system falters or fails during a medical emergency.

In 2006, DVA Ambulance, based in Durand, Michigan, decided to upgrade its radio-dispatch equipment with a new radio console. With the help of Zetron reseller, State Electronics Company Inc., they updated their system with Zetron's Model 4010 Radio-Dispatch Console.

Thanks to this new system, DVA's radio-dispatch system is simpler and more effective. It has improved communications between dispatch and field units and is making it easier for operators to dispatch emergency medical help where it's needed as quickly as possible.

40 years and counting

DVA Ambulance is an Emergency Medical Service (EMS) provider for Shiawassee and Genesee counties in Michigan. It has been providing EMS services to its community for 40 years. "If we're not the oldest EMS provider in the state, we're close," says DVA Communications Supervisor, Danny Franks.

When asked how DVA is summoned to the scene of an emergency, Franks explains: "When someone calls 9-1-1 with a medical emergency, the call goes first to the dispatch center for the caller's area. The information is then relayed by telephone or radio to the EMS provider that's in closest proximity to the emergency. If that happens to be us, we dispatch an ambulance from the station closest to the event. We have six stations—one in Shiawassee county; and five in Genesee county, around the city of Flint."

The life-saving difference

DVA offers three levels of emergency medical service, which often overlap and support each other: Basic Life Support, Advanced Life Support, and Dispatch Life Support.

Basic Life Support (BLS) ambulance units are staffed by licensed Emergency Medical Technician-Basics. They are authorized to perform basic life-support procedures that include using automatic external defibrillators and noninvasive techniques to unblock airways. A BLS unit can summon support from an Advanced Life Support unit if a situation warrants it.

Advanced Life Support (ALS) units provide the highest level of pre-hospital care available in the state of Michigan. These services are administered by highly specialized paramedics who, in addition to performing basic life-support procedures, can also give medications, monitor cardiac rhythms, perform manual defibrillation and use advanced techniques to unblock airways.

Dispatch Life Support (DLS) services are often used in conjunction with Basic and Advanced Life Support. DLS staff are trained and certified by the National Academy of Emergency Dispatch to give fast, accurate, life-saving instructions over the phone, even as an ambulance is being dispatched to the scene. They provide instructions in CPR, basic airway maintenance, hemorrhage control, techniques for treating choking, and childbirth assistance.

The beauty of DLS is that it allows someone at the scene to intervene immediately and administer time-critical first aid. "This has made the life-saving difference in many emergencies," says Franks.

Lightning strikes

According to Mike Wriggelsworth of State Electronics Company, before the new equipment was installed, DVA's radio-communications system consisted of multiple, separate Motorola radios with desk microphones. "The radios were not consolidated, but instead were scattered around the dispatch center," Wriggelsworth says. "We had no dispatch console," adds Danny Franks. "It was a hodgepodge system we put together over the years."

"I'd been wanting a dispatch console for several years before we bought the new equipment, but I'd assumed that we couldn't afford it," Franks continues. "Then, our center was struck by lightning, and the radio system was fried. This gave us the perfect opportunity to install a new system."

"...just what we needed"

DVA called in their long-time partner, State Electronics Company, of Lansing, Michigan, to help purchase and install new dispatch equipment. State Electronics is a leading systems integration and wireless-communications provider in the state. Because they were already DVA's sales and maintenance provider, they were well acquainted with DVA's existing system, including what it had, what it lacked, and how it could be improved.

DVA and State Electronics quickly decided that Zetron's Model 4010 Radio Dispatch Console would be the perfect choice for the ambulance company. It would consolidate all of their Motorola radios into a single, compact, desktop console; and it would support the integration of station alerting into the system. "The Model 4010 was just what we needed," says Franks. "And it was very cost effective."

Simple and straightforward

Franks says that the implementation of the Model 4010, which was completed in October of 2006, was as simple and straightforward as the system itself: "We worked with State Electronics to determine the specs and then sent them to Zetron," he says. "State performed the actual sale and the installation and will also service the system."

All in one

When asked how the new system is working out for DVA, Franks is enthusiastic: "We really like it. It's simple, reliable, easy to maintain, and doesn't require extensive training. It allows our dispatchers to operate multiple radio frequencies from a central point and with multiple positions. It also gives us station alerting, so we can send a tone to alert the station we want and let them know we're going to be sending them dispatch information."

"All of this is done from the Model 4010 console—it's all in one. And it's expandable," says Franks. "Right now, we're only using two radio channels, but we can go up to twelve channels if and when we ever need to. The system can grow right along with us." ■

"We really like [the Model 4010]. It's simple, reliable, easy to maintain, and doesn't require extensive training."

*Danny Franks,
Communications Supervisor,
DVA Ambulance*



Model 4010 Radio Dispatch Console

The Model 4010 Radio Dispatch Console is an entirely self-contained, single-position, radio-dispatch console that doesn't require a separate rack of circuitry cards. Compact, rugged and highly versatile, it is a perfect solution for controlling up to 12 radio channels from a single position.

Features:

- DC remote, tone remote, local control and E&M control.
- Built-in paging encoder.
- Advanced functions include simul-select, all-mute, alerts, site intercom, and channel-to-channel patching.

Zetron-Based System Is Pride of Lowndes County

Single-Vendor Solution Provides Comfort for Southern PSAP

Lowndes County, Mississippi, is home to a number of significant historical and cultural landmarks. Among these are the well-preserved antebellum mansions that are featured during the area's annual "Columbus Pilgrimage," one of the most extensive historic-home tours in the South. In order to portray the pre-Civil War era as authentically as possible, many of the homes even include re-created activities of the 1800's, complete with period costumes.

Clearly, Lowndes County takes pride in its connections to the past. But this doesn't mean that the county is frozen in an earlier time. On the contrary, its citizens also take great pride in their thriving, present-day community and the range of amenities and up-to-date services it provides.

A prime example of this is the newly equipped and completely refurbished Columbus-Lowndes County E9-1-1 Emergency Communications Center, which was inaugurated in March of 2006. From all accounts, the updated center is performing up to and even exceeding the goals that were set for the project.

The pressing concerns of a PSAP

Located in Columbus, Mississippi, the Columbus-Lowndes County E9-1-1 Communications Center provides emergency call-taking and dispatching services for all of the public-safety agencies in the county. This includes the Columbus Police Department, the Lowndes County Sheriff's deputies, the Baptist Memorial Hospital Ambulance Service, the Columbus Fire Department, and the county's five volunteer fire departments. Given the scope and importance of these responsibilities, it's easy to see why the center's communications system was a concern, especially since the system wasn't serving the center as effectively as it might.

The lowdown on Lowndes

Prior to the recent upgrade, Lowndes County's emergency communications equipment had some serious limitations. It was not Phase-II-wireless compliant, so it was unable to provide the location of anyone who was using a cell phone to report an emergency. In addition, because the equipment didn't support interoperability, agencies with dissimilar radio equipment found it difficult if not impossible to communicate with each other.

A third issue was that the equipment had been purchased from multiple vendors. This meant that getting the equipment serviced or repaired could require numerous calls to multiple vendors who were often reluctant to take responsibility for a problem and solve it. "This was a huge concern for us," says Jessie Colvin, Columbus-Lowndes County E9-1-1 Communications Center Director. "It made it difficult to get our problems addressed and fixed."

To rectify these issues, Columbus-Lowndes County E9-1-1 sought and obtained the funding necessary to refurbish and update their facility. They then called upon InterAct Public Safety Systems, BellSouth and Zetron to help with the project.

A reliable, single-vendor solution

A thorough process was initiated to determine what the solution should include. "Everyone from board members to dispatchers attended the presentations and demos," says Deidre Lyons, Regional Vice-President of Sales for InterAct Public Safety Systems.

It became clear that what the customer wanted and needed was a reliable, single-vendor, turnkey solution that would streamline their call-taking and dispatching processes. They also needed the new system to provide enhanced interoperability, good reporting utilities and Phase-II wireless compliance.

They decided to implement a Zetron-based system that would include and integrate with equipment from InterAct. "The extensive integration of the InterAct and Zetron equipment provided the exact functionality the customer was looking for," says Lyons.



The solution included:

- Zetron's Model 3200 E9-1-1 Telephone System.
- Five positions of Zetron's Integrator 9-1-1 Computer Telephony Integration Workstation.
- Five Zetron Model 3240D Consoles to serve as backup phones.
- Zetron's Series 4000 Communication Control System for radio dispatch.
- Five positions of Zetron's Integrator RD Radio Dispatch Workstation.
- Five positions each of InterAct's CAD system and its GIS mapping system.
- InterAct's NCIC interface.

Tornadoes threaten

Most extensive remodels and system implementations have their share of tricky moments, and this project was no exception. The old equipment was set up in a trailer so 9-1-1 operations could continue during the remodel. Things were going well enough until some bad weather swept through the area: "Tornado warnings had everyone on standby to move the customer back into the safety of the main building if necessary," says Lyons. Luckily, no tornadoes touched down, and they were able to complete the project without having to make that extra move.

BellSouth keeps operations smooth

According to Lyons, even though the project implementation involved three key players—Zetron, InterAct and BellSouth—the way it was managed kept things running smoothly. "It was clear that BellSouth was the lead project manager," she says. "So the implementation was handled primarily by BellSouth, with InterAct and Zetron serving as backup when they were needed."

In addition, once the system was installed, BellSouth would be the single vendor for the customer. This addressed a key requirement of the new system. "The customer has just one vendor to call, regardless of whether an issue concerns the network or the equipment," says Lyons. "Having the system supported by BellSouth is an awesome bonus."

"This is a huge benefit to us," adds Jessie Colvin. "Now, if dispatchers have a problem, they know exactly who to call to get it fixed."

The true test

The new system is providing the E9-1-1 Center with all of the features and functionality they were looking for: interoperability, Phase-II compliance, a single vendor for service, and improved functionality and features.

But perhaps the truest test of the new system's success is the response it's getting from the dispatchers who use it every day: "They really love it," says Colvin. "They say that the new system is more comfortable and easier to use. It makes their jobs easier." These outcomes and the quality of service they support give Lowndes County even more to be proud of. ■

"[Dispatchers] say that the new system is more comfortable and easier to use. It makes their jobs easier."

*Jessie Colvin,
Director,
Columbus-Lowndes County
E9-1-1 Communications Center*

Backup PSAP Strikes the Right Chord for Nixa, Missouri

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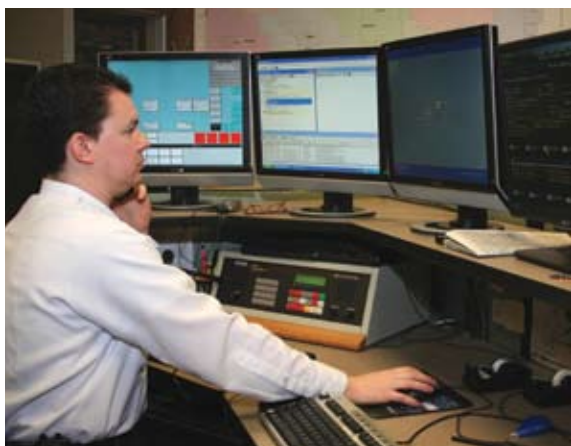


Photo courtesy of John Rayfield, Jr.

equipment, mobile-data systems, computer-aided dispatch, GIS software systems, and Voice-over-IP (VoIP) systems.

When asked how Rayfield Communications was chosen for the project, Rayfield Communications President, John Rayfield, Jr., responds: "We've been around a long time, so people know us and our work. And we're real picky. We strive for perfection. We might not always reach it, but because we aim high, we get a lot closer. Our customers appreciate that. They've learned to expect nothing but the best from us."

The beauty of an all-Zetron system

The customer wanted a cost-effective system that was highly functional, easy to use, and that could be serviced locally at a reasonable price. They also wanted to use Zetron products for both their radio dispatch and call-taking equipment.

The Zetron Series 4000 Communication Control radio-dispatch system was a strong candidate from the start. "The Series 4000 was already performing well for the Sheriff's Department and Nixa," says Rance Duffy. In addition, both the Series 4000 and Zetron's Model 3200 are known throughout the communications industry for their reliability, functionality and cost effectiveness—the very features Nixa was looking for.

Another advantage of using Zetron equipment for both the radio dispatch and telephone systems was that it would provide the District with one-stop-shopping for its products as well as its services. "Some of the 9-1-1 centers have multiple service centers for their different equipment," Rayfield explains. "This can make it confusing and costly to get the equipment serviced. If they can do it all with one dealer, it's cheaper and easier."

For all of these reasons, Rayfield Communications and the Fire Protection District decided to base the backup on Zetron's Series 4000 radio-dispatch system and its Model 3200 Telephone System. The installation would also include:

- Two positions of the Zetron's Integrator RD Workstation.
- Motorola MTR 2000 base stations and CDM Series control stations.
- The Zetron Model 250 Tone-Remote Adapter to connect the control stations and the Series 4000.
- The Zetron Integrator Suite, including Integrator 9-1-1 for call taking, Integrator Map for GIS mapping, and Integrator MIS for management information.
- Four monitors for each of the two operator positions.
- An Interpol CAD system identical to the one already being used in the primary PSAP.
- A fibre-optic link between the CAD system at the primary PSAP and the CAD system at the backup.

The backup takes center stage

The new facility went online in January of 2007 to provide backup for the City of Nixa, the Christian County Sheriff's Department, and other cities in the region when the need arises. And it already has.

"The dispatchers are very knowledgeable and can really compare the old and new equipment. And their reaction to the new equipment is, 'We love it!'"

John Rayfield, Jr.,
President,
Rayfield Communications



Series 3200 E9-1-1 Telephone System

The Series 3200 E9-1-1 Telephone System is an electronic key telephone system with an integrated E9-1-1 ANI/ALI Controller designed for the rigors of use in Public Safety Answering Points (PSAPs).

Features:

- Integrated TDD and Instant Recall Recorder.
- Exclusive Zetron Digital Audio Control (ZDAC™).
- Meets industry specifications including NENA-04-001 "Generic Standards for E9-1-1" PSAP Equipment.
- Phase I & II Wireless 9-1-1 ready.
- Remote IP-capable.
- Map integration.

Due to a remodel of the Nixa Police Department, the backup has been pressed into full service. All of the dispatchers who usually work in the primary facility have moved temporarily into the backup, and will continue to use it as the main PSAP until the remodel is finished.

According to John Rayfield, the new backup is a big hit. "The dispatchers are very knowledgeable and can really compare the old and new equipment. And their reaction to the new equipment is, 'We love it!'"

Rance Duffy concurs: "We really like the new equipment," he says. "We aren't using the Model 3200 call-taking system in the primary facility at the police department, and when we mention to the dispatchers that when the remodel is done, they'll have to move back to the PSAP in the police department, they say, 'But we really like this equipment. Can't we just stay here?'"

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