

APR. - JUN. 2017
VOL 31, ISSUE 2

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In a Digital Age – Tradition Delivers New System for Malden PD



Going Digital

Since the 1970's, the Malden police department has been operating out of the same building, and using the same equipment for the last 15 years. With its aging infrastructure and equipment, they were one severe storm away from losing everything. Desperate for not only a new building, but new equipment, Dave Urban, Public Safety IT manager with the City of Malden, knew they couldn't have both due to budget constraints. "I knew there would have to be a trade-off somewhere, so I assumed new equipment was out of the question," explained Urban.

Just when things were looking bleak, the perfect storm happened. But this storm was in their favor. One of ALL-COMMS' sales staff knew someone in Malden and played at a wedding for someone in the Malden police department. This paved the way for Zetron to propose a solution for the department's new equipment.

The perfect system at the right price

Anticipating the same tradeoffs he'd received from other proposals, once the proposal hit Dave's desk, he thought it was too good to be true. He was sure something was missing. "There's no way this covers everything, something has to be missing," Urban said. He was shocked when the solution not only included the latest and greatest console with the redundant network, but a brand new P25 digital infrastructure as well.

Out with the Old, In with the New

With the new, 24,000 square foot, state-of-the-art headquarters on Eastern Avenue finished, they were ready to transition to the new building and the system. But quickly faced their first hurdle - they were still running some equipment in the old building. It simply wasn't an option to shut down the old equipment. Both had to stay up and running, plus all the camera traffic had to be routed back to the old station, while simultaneously directing traffic to the new building. A complicated challenge, made simple with three Zetron's MAX Dispatch consoles. Delvis Javier Technical Supervisor with ALL-COMM Technologies in Revere Massachusetts, assured that both buildings would run simultaneously without a hiccup.

One Day at a Time

Seamless is usually the last word used to describe a move. Add in the complexities of transitioning their equipment, it was a relief to find out the move didn't have to happen overnight. Javier and his team were able to take their time migrating everything over. Finally on Halloween night, their new headquarters was fully switched over to the new system. And since then, it's required no service calls for the console or the radio system. "It's working great. Everyone in the surrounding communities are asking about it. The P25 sounds beautiful and the console is beautiful. It's taking care of everything our dispatchers need," recalled Urban.

Foolproof & Futureproof

With everyone trained and comfortable with the new system, it was put to the test almost immediately when the Malden Hospital lost power. And when their backup power supply ran out, it was disconnected from the network. But with its integration with the Tait radio, they were able to setup automatic notifications, so everyone who needed to know, already got an email. "You know what, you've made this thing foolproof," Urban said, after experiencing the power outage.

The Zetron and Tait combination are a perfect match; both systems have multiple automatic redundancies built in which remove any single point of failure. "These systems really focus on critical communications for Public Safety assuring that communication will be available when most needed" said Javier.

With a foolproof system, the future looks to be smooth sailing for the Malden police department. "That's something we're looking for next year, a laptop with a wireless hotspot like we've done with other consoles," said Javier. "It'll be easy to do, we have all the infrastructure in place now." ■



MAX Dispatch

SPANS

Across Missouri State

The 11-site MAX Dispatch system recently implemented by the Missouri Department of Transportation is providing the updated, flexible communications the agency requires to manage and maintain roads and highways throughout the entire state.

Zetron's MAX Dispatch system is garnering high praise in a geographically diverse implementation that spans the entire state of Missouri.

Installed by Zetron reseller A&W Communications for the Missouri Department of Transportation (MoDOT), this MAX Dispatch solution is showing Missourians that it is fully capable of doing what's necessary to help keep things moving smoothly over Missouri's vast system of roadways.

MoDOT Spans the state of Missouri

MoDOT is headquartered in Jefferson City and has seven districts that span the state. The agency oversees the care and maintenance of Missouri's 33,884 miles of roadway.

"We take care of everything on the highway," explains MoDOT Senior Engineer, Rick Bennett. "That includes plowing snow, putting

down salt, and performing road repairs and maintenance. We fix pavement, guard rails, bridges, and traffic signals. We put stripes on the road, install signage, and mow during the summer. It's a big operation. To do it all, we employ about 5,100 people, 3,500 of which are field staff."

Radio dispatch for MoDOT

With such a diversity of tasks and such a large number of field staff to manage, it's not surprising that MoDOT would use radio dispatch to coordinate its activities.

"We've got 4,000 mobile radios and a network of repeaters that supports them," says Bennett. "That basic system was built in late 60s and early 70s, and we still use it in much the same way now as we did then for our field communications."



“With MAX Dispatch, we can communicate from truck to truck and across all our district offices throughout the entire state.”

*Rick Bennett, Senior Engineering Professional,
Missouri Department of Transportation*

One lightning strike away

Prior to the recent installation of MAX Dispatch, MoDOT’s district offices were equipped with Zetron Model 4010 standalone consoles. Although the consoles performed like workhorses for many years, they were about 20 years old—ancient in technology years. “We were about one lightning strike away from losing some of our sites,” says Bennett. “It was time for us to get new equipment.”

Hammering out a plan

To find and install a new, updated system, Bennett enlisted the help of A&W Communications.

With offices in Eolia and Jefferson City, Missouri, A&W focuses on two-way communication sales and service, primarily for public safety agencies. In business since 1985, they’ve earned a solid reputation with MoDOT for the quality of their work. “A&W has been taking care of all of our radio system repair and maintenance for years,” Bennett says. “They’ve done a great job of solving any issues we’ve had.”

When it came to selecting a new dispatch system for MoDOT, Bennett’s past experiences with Zetron made the decisions an easy one. “We’ve gotten very reliable performance from our existing Zetron consoles,” he says. “So we were predisposed to Zetron. We got together A&W president, Tom White, and told him what we wanted. Between him and Zetron and us, we hammered out a plan for a system that would not only support everything we were doing before, but would give us more features, updated technology, and the ability to communicate statewide.”

The solution they arrived at included two installations of the MAX Dispatch control-room equipment—known as “nodes.” One would be installed at MoDOT’s central office in Jefferson City, and the other would be installed at their district office in Kansas City. The nodes would control radio equipment at 10 tower sites and a total of 11 MAX Dispatch consoles implemented at MoDOT’s district offices across the state.

Decluttering the infrastructure

Tom White says that the project began with removing much of the pre-existing infrastructure.

“Previously, we’d used multiplexers to transport audio from the existing consoles across the network,” he says. “But because MAX Dispatch is IP-based, we didn’t need those multiplexers anymore so we removed them. It was pretty slick. Now, you go out to tower sites where we used to have six-foot-tall racks of hardware, and the racks are almost empty. This not only cleaned up and decluttered the sites, but it also eliminated many points of failure.”

Staging and installation

MAX Dispatch underwent preliminary staging and evaluation at A&W’s office, then the equipment was installed at the district offices, one site at a time.

“We split up our team so several technicians were installing the MRGs [MAX Radio Gateways] as I was installing the consoles for a particular location,” White says. “We tested them right then and there, and it all went very smoothly. We set it up so that on the Jefferson City node, there would be eight MRGs, 16 channels, and seven positions. On the Kansas City node, we’d have nine MRGs, 18 radio channels, and four positions. The implementation only took about two weeks, maybe three.”

Training is easy

A&W provided training at each site as soon as its console installation was finished.

“It was easy to train the operators,” says Caleb Tucker, an A&W technician who helped with the project. “Training took all of about 20 minutes,” he says. “It was mostly just a matter of learning how to select channels, and that’s much easier with MAX Dispatch than it was with their previous button-based system. I’ve installed a number of MAX Dispatch systems, and in my experience, training is always easy because MAX Dispatch is so intuitive.”

MAX Dispatch shows them how it’s done

MAX Dispatch is now delivering improved features and functionality that even the most tough-minded Missourian would approve of. It supports the geo-diverse, statewide communications MoDOT requires, provides expanded interoperability across different radio equipment, and ensures that operations can be taken over and handled by any of one of the agency’s offices, if needed.

Bennett is pleased with MAX Dispatch and all it offers. “The system is cost-effective, much easier to use than our old equipment, gives us great flexibility, and offers a host of enhancements we didn’t expect, but really appreciate,” he says. “Now, we can communicate from truck to truck and across all our district offices. If we have an emergency and one district goes down, another district can just pull up the screen for the district they’re helping and take over. And our dispatchers really love it, which is a big plus.”

The system also offers an important possibility for the future. “We have an extensive network of satellite-based backup communications,” says Bennett. “Missouri is an earthquake state, so we have to be ready and able to maintain communications during a large-scale disaster. With the help of A&W and Zetron, we’re now exploring whether we can engineer MAX Dispatch to work over satellite system. We plan to start with a trial site. And if it works, we’ll roll it out statewide.”

MAX Dispatch/NEXEDGE® Solution Improves Safety and Security at Gonzaga



College and university campuses experience their share of dangerous and threatening situations, putting the safety of their students and staff at risk. That's why when Gonzaga University took the important steps to help ensure campus safety, they turned to Zetron's MAX Dispatch console system to support their campus security activities. This not only gave their security team a much needed upgrade, but it simplified the process of configuring and integrating with the NEXEDGE radio system they installed at the same time. Now, the two systems work seamlessly together.

Campus security

Thanks to an active and ongoing relationship with both police and fire departments in Spokane, WA, Scott Snider, Gonzaga's director of campus security and public safety and his staff of 21, with 14 officers and other uniformed assignments can rely on their response. "We call on them whenever we have an issue that requires their response or aid," explained Snider. "We work very well together." "Going forward, the city has preliminarily agreed to our access to an emergency radio channel on their trunked radio system and when this part of the project is complete we will be able to talk security officer to first responder in a crisis."

The process to build the new system started when campus representatives began having serious discussions about the need for obtaining new communications equipment, back in early 2016.

"We had a number of disparate, non-compatible radio systems on campus that couldn't talk to each other," Snider said. "Some of the equipment was getting antiquated to the point that we were unable to find radio equipment that was compatible with it. This was beginning to pose considerable challenges to my department and other departments on campus."

Snider and Tomson Spink, a manager from campus Plant Services combined efforts to tackle and solve this problem. Together, they decided the best solution would be to migrate to a digital trunked radio infrastructure system and replace their old, non-interoperable equipment with a new dispatch console system. "I agreed that I'd obtain the funding for portables and a new dispatch console to be

installed in our dispatch center. Spink would go after funding for the new infrastructure and radio antennas." Their bosses agreed with the proposal and the project was approved.

Customization Simplified

"We had the luxury of relying on previous relationships and familiarity with Industrial Communications, developed Spink at a nearby institution by where they installed a similar system," Snider said. "And we have the convenience of them being right here in town, they're very easy to get a hold of and we still enjoy their responsiveness, to this day."

After performing demos of the MAX Dispatch console, and no competitor able to step in at the same price point, it was an easy decision for Snider. "Working with Industrial Communications was the deciding factor," Snider recalled. "They saw the value of having the Zetron system be part of our new digital trunked system. The MAX Dispatch system offers a lot and gives us the same capabilities as much more expensive systems."

Once the system was installed, they took it a step further and were able to brand the "all-call" button. "We branded it as part of our alert system, and we were also able to put a beautiful photo of campus on the screen's background. It makes it our system, it looks like it belongs here in our university," said Snider.

Reliable Expansion for Tomorrow

While they'd grown accustomed to the unreliable, poor coverage, it was one less thing Snider and his team had to worry about. And the simple, customizable interface were added bonuses, making everyone's lives easier and more productive. Now, with everything in place, they're able to focus on future expansion, which includes a laptop for portability. "The mobility would give us the ability to setup shop anywhere we need to if something should happen to our dispatch center and we're displaced," Snider said. "We're looking forward to working with Industrial Communications and Zetron, they're great to work with, great partners." ■

RapidSOS and Zetron Announce Successful Deployment of Enhanced Location Solution and Participation in Tennessee Pilot Project

Zetron and RapidSOS announced the deployment of RapidSOS-enabled Zetron MAX Call-Taking software in multiple Public Safety Answering Points (PSAPs) in Tennessee. PSAPs equipped with the newest MAX Call-Taking software are actively participating in a statewide pilot project coordinated by the TN Emergency Communications Board, a nationally recognized leader in Next Generation 9-1-1 deployments.

Through this integration, PSAPs using Zetron's MAX Call-Taking solution have the ability to query the RapidSOS NG9-1-1 Clearinghouse when a wireless call is received. In return, the Clearinghouse transmits device-based hybrid location obtained from all smartphone location sensors through NG9-1-1 delivery mechanisms. The RapidSOS Clearinghouse functionality will by default be integrated into all upcoming deployments of the Zetron MAX Call-Taking 1.8 release.

"Over the past few months, we've been impressed by Zetron's commitment to our partnership and their ability to deploy innovative solutions," said Michael Martin, CEO of RapidSOS. "We are thrilled to see the first results and we are confident this partnership will result in faster response times not just in Tennessee, but nationwide."

Multiple PSAPs equipped with the newest Zetron MAX Call-Taking solution have participated in comparative location testing across Tennessee in a pilot project overseen by the State Emergency Communications Board. The results have shown that location transmitted to the RapidSOS NG9-1-1 Clearinghouse via device-based hybrid location mechanisms is not only more accurate, but also is available faster than traditional ALI location information. Initial findings put device-based hybrid location within 50 meters of ground truth for 97% of calls, compared to only 44% of calls that were reliant only on ALI location information. Detailed test results and a project summary for the Statewide Pilot Project can be found here.

"The results of the location testing were better than I could have ever hoped for", said Alice Johnson, Zetron's MAX Call-Taking product manager. "This partnership is going to give call takers using our systems the location data they need to dispatch help quickly, speeding up response times and improving emergency outcomes." [▶](#)



Zetron and Harris Corporation Announce Strategic Partnership

Zetron and Harris Corporation's Public Safety and Professional Communications (PSPC) business, have teamed up to provide industry-leading technology in North America. This strategic partnership agreement leverages Zetron's world-class dispatch offering and Harris' best-in-class DMR Tier 2 & Tier 3, P25 conventional and P25 trunking.

Zetron's extensive history and involvement in developing open standards has made this partnership a win for customers, providing more flexibility and freedom to invest in the right system for their organization. The AcomNOVUS system combines an advanced telephony feature set and radio integration with a simple, yet highly customizable industry-leading user interface, making it ideal for use across multiple markets, including utilities, transportation and public safety. Customers will benefit directly from the combined Zetron and Harris solution thanks to the expanded integrated communication systems the two companies are known for.

"Supporting our customers, past and present, has always been our highest priority. This partnership solidifies our commitment to the future as well," said Charles (Lin) Lindsey, Director of Strategic Partnerships for Zetron. "We support the widest range of radio interfaces in the industry, and giving Harris the ability to leverage our AcomNOVUS system and integrate other technologies such as their

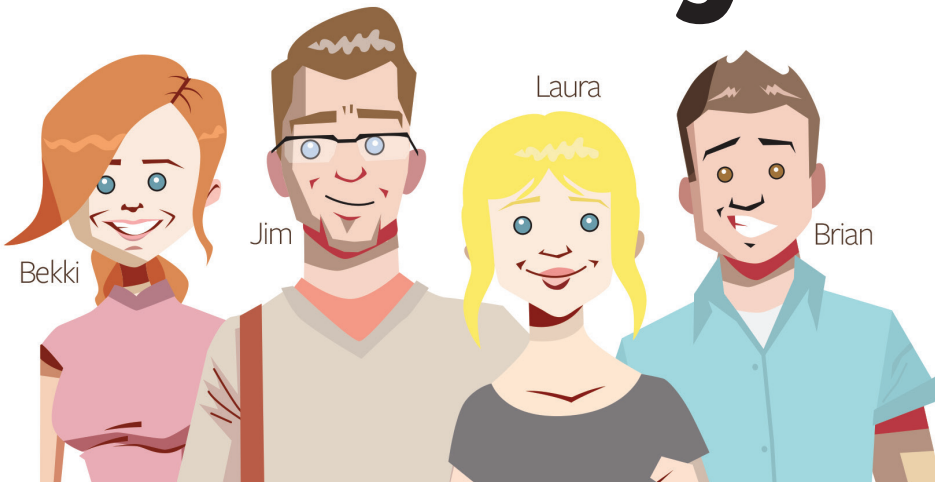
EnableLocation™ automatic vehicle location (AVL) application, powered by Tait, deepens our commitment to them."

"The industry continues to evolve quickly and this partnership represents our combined commitment to creating open and innovative solutions for our customers," said Paul May, Senior Product Manager, Harris Public Safety and Professional Communications. "Harris is proud to bring its robust portfolio of system solutions for public safety and utilities to the partnership."

"We're thrilled to formalize our partnership with Harris," Lindsey said. "The progress we've made together so far ensures a strong foundation for this exciting opportunity for both companies. By providing Harris with the renowned quality and industry leading customer service and technology Zetron is known for, we foresee a successful partnership well into the future." [▶](#)



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ZETRON AMERICAS

PO Box 97004,
Redmond, WA 98073-9704, USA
(P) +1 425 820 6363
(F) +1 425 820 7031
(E) zetron@zetron.com

ZETRON EMEA

27-29 Campbell Court,
Bramley TADLEY, Hampshire RG26 5EG, UK
(P) +44 1256 880663
(F) +44 1256 880491
(E) emea@zetron.com

ZETRON AUSTRALASIA

PO Box 3045,
Stafford Mail Centre, Stafford QLD 4053, Australia
(P) +61 7 3856 4888
(F) +61 7 3356 6877
(E) au@zetron.com

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