THE ZETRON ADVANTAGE

Monmouth County Inaugurates New P25 CSSI-Phase-II Solution

In This Issue...

60-Position Zetron System Equips
'Most Up-to-Date PSAP in New Jersey'

Monmouth County Inaugurates
New P25 CSSI-Phase-II Solution

Zetron's AcomEVO dispatch system using the Project 25 (P25) Console Subsystem Interface (CSSI) with Motorola's ASTRO 25 Phase II network recently went live in Monmouth County, NJ. It is the first deployment in the industry to utilize the CSSI in a P25 Phase-II solution.

....

Monmouth County, New Jersey, is no stranger to disaster.

The tragic events of 9/11 were witnessed and felt by many throughout the State of New Jersey, including Monmouth County. In August of 2011, Hurricane Irene caused major flooding throughout the area. And in 2012, Superstorm Sandy delivered a devastating surge to Monmouth County's coastal communities.

The knowledge that such things can and do happen can either be paralyzing or catalyzing. Monmouth County's approach to public safety is a clear demonstration of the latter, and the new Monmouth County Sheriff's Office Public Safety Center is a case in point. The 60-position center is designed and equipped to ensure that the community has access to the public-safety and law-enforcement services that are so critical when disaster strikes, whatever form it might take.

Monmouth County

Located in the central part of New Jersey, Monmouth County is the northernmost county along the Jersey Shore. With an area of about 665 square miles and a population of approximately 630,000, it is the fifth most-populous county in the state.

The Monmouth County Sheriff's Office maintains two consolidated public safety answering points (PSAPs) to manage the county's public-safety and law-enforcement communications. SouthComm in Neptune, NJ, is the smaller of the two and serves the shore area of the county. CentComm in Freehold, NJ, is the main center; it serves most of the rest of the county.

"We're a busy operation," says Monmouth County Sheriff Shaun Golden. "Our Communications Division answers 9-1-1 calls for 45 of the county's 53 municipalities and provides dispatch for 20 police departments, 56 fire companies, and 30 first-aid squads. About 550,000 calls come into the communications center annually."

Time for a change

Golden explains why Monmouth County recently decided to construct and equip a new main communication center. "CentComm was built nearly 30 years ago. Not only had the equipment become antiquated, but we had outgrown the space," he says. "There was also not enough redundancy built into our communications systems. In fact, we originally built SouthComm as a stop-gap measure to add redundancy until we could update the equipment in the other center."

The new center gets underway

When the time was right, Monmouth County decided to not only update their equipment, but to also construct a new facility from the ground up.

Planning the new center was a seven-year process that included soliciting and prioritizing input from agency administrators and other stakeholders connected to the new center. A key undertaking involved finding new communications equipment that would provide the updated functionality, interoperability, redundancy, and ease of use required to meet these stakeholders'—and Monmouth County's— immediate and projected needs.

Bid specifications were written to ensure that the agency's requirements were clearly defined. Then a request for proposals was issued for a solution that would integrate a Project 25 (P25) Phase II network with a state-of-the-art digital dispatch console.

Motorola responded with a bid based on a 60-position Zetron Advanced Communications (AcomEVO) system connected through the P25 Console Subsystem Interface (CSSI) to Motorola's ASTRO 25 Phase II infrastructure. This is the proposal Monmouth County chose for their new center. It was a ground-breaking solution in a number of ways.

The importance of P25 Phase II and the CSSI

The benefit of P25 Phase II is that it offers twice the spectrum efficiency provided by Phase I. And the CSSI is an open-standards-based interface that allows customers to integrate console and network solutions from different vendors. The deployment for Monmouth County would be the first in the industry to offer the CSSI in a P25 Phase-II solution. AcomEVO would also be the first third-party console to integrate with Motorola's ASTRO 25 system. The CSSI is the technology that would make this integration possible.

Freedom of choice

When asked why they preferred a solution that combined the equipment of two different manufacturers, Golden's answer underscores the value of open standards to customers: it's about the freedom to pick and choose.

"We wanted the Motorola network and its Phase-II functionality as well as the Zetron Acom console," he says. "We've used Zetron consoles for many years and were very satisfied with their reliability and performance. We like the functionality, customizability and room for growth the Acom system offers. It would also support our legacy VHF radio equipment as well as our new P25 network. This is important because many of our smaller agencies are still on VHF."

A smooth cutover

Although building a new center is a huge project, once construction is complete, it can be easier to move into a new center than to install equipment in a busy, functioning center. This was certainly true in Monmouth County's case.

"We remained in the old center and kept it running until the new center construction was finished and the equipment installation and testing were complete," says Golden. "The transition to the new

> ❝The system will easily support the 30-percent growth we expect over the next 25 years.❞
>
> *Sheriff Shaun Golden,* Monmouth County

center involved not just our new consoles, but all of our equipment, including our CAD and phone lines. Before making the final cutover, we had to ensure that all of the phone lines from the smaller municipalities we support were ringing into the new center. This took several days, but it was a smooth transition. We also had plenty of great help from Zetron before, during and after we cut over."

Set for the future

The new, 45,000-square-foot, state-of-the art center went live in April 2014. And its new equipment is already delivering a host of important benefits. Chief among them is the ease with which operators are able to learn and use it.

"AcomEVO's customizable screens allowed us to create icons and other features that resemble those on our previous system," Golden explains. "This made it easy to learn and reduced training time. Our familiarity with Zetron systems also made the transition easier for both our operators and technicians."

The AcomEVO system also offers easy expansion: "The system will easily support the 30-percent growth we expect over the next 25 years," says Golden. "In the near-term, we already have several consoles to add to the system. For the foreseeable future, we're set."

Best in state

More than 250 people attended the official ribbon-cutting ceremony held April 29, 2014, to inaugurate the Monmouth County Sheriff's Office Public Safety Center. The initial response to the center was overwhelmingly positive, and the good reviews continue to roll in.

"Administrators from PSAPs all over the state and throughout the Eastern Seaboard are very excited about it," says Golden proudly. "They're telling us it's the best, most up-to-date PSAP in New Jersey."▪

AcomEVO

AcomEVO represents the highest tier in IP-based dispatch solutions. It seamlessly integrates voice, data, paging, and video into one easy-to-use system. AcomEVO's redundancy, advanced features, and flexible configuration help ensure the efficiency and integrity of critical communications.

Features:

- **High interoperability:** Supports legacy and emerging radio and telephony equipment and interfaces.
- **Single- or multi-site platform; supports 2,000+ interfaces:** Supports over 2,000 radio and telephony interfaces and more than 200 IP-based dispatch positions.
- **Bandwidth efficiency:** Improves bandwidth efficiency by providing a combined audio stream to the console rather than separate streams for each radio/telephony connection.
- **High configurability:** Can be configured to meet your organization's unique operational requirements.

Operator/dispatcher Lisa Ernst answers a call at Island County I-COM 9-1-1.

Mutual Backup at the Click of a Mouse

Zetron's MAX Dispatch Equips 2 PSAPs for 'Continuity of Operations'

Zetron MAX Dispatch systems installed at two Washington State PSAPs improve interoperability, support remote dispatching, and allow the agencies to back each other up if the need ever arises.

Rich farmlands, rocky saltwater inlets, and fields of tulips that stretch as far as the eye can see. These are some of the things Washington State's Skagit and Island counties are known for. But there are other, day-to-day realities affecting these two neighboring counties that, while less obvious to those who don't live there, are vitally important to those who do.

One of them is the need for what Skagit 9-1-1 director, Bill King, refers to as "continuity of operations." "Continuity of operations is a FEMA term that to us means the ability to keep providing our services, even if we have to evacuate our site or our equipment goes down," he says.

While continuity of operations is something many PSAPs wish for, budgetary constraints and logistical complexities can make it hard to achieve. That's why the joint effort to install Zetron MAX Dispatch systems at Skagit 9-1-1 and Island County's I-COM 9-1-1 is

noteworthy. The new equipment not only updates their technology, but allows the two agencies to take over each other's dispatch operations, if necessary, with just the click of a mouse.

Skagit 9-1-1 and I-COM 9-1-1

From its office in Mount Vernon, Washington, Skagit 9-1-1 answers emergency calls and provides dispatching for the county's fire, law-enforcement, and emergency medical services (EMS) agencies. I-COM 9-1-1 provides these services to neighboring Island County from its office in the city of Oak Harbor, Washington.

Bill King explains how updating the two PSAPs' dispatch systems became a joint project. "Skagit 9-1-1 and I-COM have been sharing a microwave network and backing up each other's 9-1-1 call-taking for some time," he says. "We've developed a very good working relationship over the years. So when we realized that both of our existing Zetron systems had reached their end of life, we thought it would be the perfect time to not only replace the equipment, but to extend our emergency backup capabilities to dispatching as well."

Key requirements

The two agencies began holding weekly meetings to discuss what they would both want and need in a new dispatch system. Several key requirements emerged from these discussions. One was that the new equipment would have to be IP-based in order to provide the expandability and adaptability both agencies wanted for the future. It would also have to support interoperability and be easy to learn, use, and administer. Last but not least, it would have to deliver a powerful return on investment.

The winning proposal

In March of 2013, Skagit 9-1-1 and I-COM issued a joint request for proposals (RFP) delineating their requirements. Several vendors responded, but at the end of April, the project was awarded to Zetron reseller, Silke Communications, based on their proposal featuring Zetron's MAX Dispatch system. Headquartered in Eugene, Oregon, Silke has offices throughout Oregon, Washington, and California.

"We chose Zetron and Silke for a combination of reasons," says I-COM assistant director, Alice Johnson. "Silke has many years of experience and a great reputation. And we've been very pleased with the performance and reliability of our previous Zetron systems. MAX Dispatch was also the solution that best addressed our specs. It is IP-based, flexible, and easy to use and configure. Plus, Zetron's technical support is fabulous, and they can log into the system remotely to view and troubleshoot any issues we can't resolve ourselves."

"We also conducted a thorough cost-of-ownership analysis projected out over five years," adds Skagit 9-1-1 technical services manager, Mike Voss. "MAX Dispatch would deliver the best value over time. And Silke offered the best options for the system installation."

Staging at Silke

Although the installations did not occur simultaneously—I-COM's was first—the implementation process for both systems was similar. It began with staging the equipment at Silke Communication's office in Salem, Oregon.

"It was a group effort," says Silke Communications senior regional manager, Starsky Brolin. "Our technicians staged and racked everything and set it up just as it would be at Skagit and I-COM. Zetron remoted into the system and helped with the configuration process and also came to the sites to help with the install and training. Both agencies' technical staff also helped with the final installation and configuration."

Remote access during staging

One unique aspect of the project was that dispatchers were able to remotely access and work with the systems as they were being staged.

"Before the new system even arrived, we were remoting in, creating screen layouts, and getting accustomed to its look and feel," says Johnson. "When it did arrive, we were familiar with it and already had some idea how to use it."

'Plug-and-play'

Because the staging was so thorough, the final installations were, as Mike Voss puts it, "…pretty much plug-and-play. We installed the new system alongside our old one, activated the new consoles one at a time, completed the cutover, and removed the old equipment. It was seamless."

The transition was also an easy one for dispatchers. "I expected some reluctance," says Johnson. "But as we brought the new consoles up, the dispatchers were in line, asking to be next to start using one."

Deputy Jeff Willard (left) and Sgt. Chris Baldwin at Skagit 9-1-1.

> **❝**[MAX Dispatch] is delivering the IP-based flexibility, improved interoperability, crystal-clear audio, and continuity of operations we were hoping for.**❞**
>
> **Bill King,** Director, Skagit 9-1-1

Standout features

Johnson says that although she's very happy with the new equipment overall, there are a few features that stand out for her.

"Officers now have an emergency button on their radios," she explains. "An officer who's in trouble can push the button, and an alert with the officer's ID appears on the MAX console. We can dispatch help quickly if an officer needs it. Also, a dispatcher who wants to replay an audio transmission can quickly find it by going to the frequency and bringing up a list of recordings broken out by unit ID number."

Perhaps most important of all, however, is the fact that Skagit 9-1-1 and I-COM can now operate each other's radio frequencies from either center. "If we need Skagit to take over our dispatching," says Johnson, "they can do it from their consoles. And we can do the same for them."

'Well received'

It's going on a year since the systems went live, and everyone involved with the project is more than pleased with the results.

"A change of this magnitude can be a hard sell," says King. "But the new equipment has been very well received. Even our dispatchers and member agencies, who are tough audiences and not shy about telling us what they think, are very happy with it. It is delivering the IP-based flexibility, improved interoperability, crystal-clear audio, and continuity of operations we were hoping for." ■

MAX-imizing Idaho PSAP's Critical Communications

Zetron MAX Systems Equip Latah County for Remote Ops and Next-Gen Functionality

With its new Zetron MAX Dispatch and MAX Call-Taking systems, Latah County, Idaho, is reaping the benefits of updated, IP-based functionality and is equipped to meet emerging Next-Generation communication requirements.

As Support Services Supervisor for the Latah County, Idaho, sheriff's office, Mike Rosen brings a unique perspective to his work.

From 1990 to 2012, he served in the U.S. Marine Corps in a variety of positions where he oversaw operations and logistics. This exposed him to an array of emerging communications technologies. So when he left the military and was subsequently hired by the Latah County sheriff's office into a position that included supervising its public safety communications, he quickly recognized that the agency's communications equipment had fallen behind. With the approval of Latah County Sheriff Wayne Rausch, Rosen set about to rectify this situation.

Latah County

Latah County, Idaho, comprises most of the eastern portion of the Palouse. A region known for its rolling hills and rich agriculture, it is a major producer of wheat, legumes, and timber.

The Latah County Sheriff's Office Support Services Division provides administrative services to a number of county departments and offices and also oversees the county's public safety answering point (PSAP).

"We patrol an area of 1,100 square miles," says Rosen. "We also answer 9-1-1 calls, and provide dispatching for the entire county's law-enforcement, fire, and emergency medical services agencies, except for Moscow, which contracts a private company to provide these services."

The case for an update

By 2012, a number of factors were converging to make updating the Latah County's 9-1-1 center a priority. The agency had grown to capacity and space was tight. And their call-taking and dispatch equipment was about 12 years old. So even though it was still reliable and fully operational, it was not designed to provide the updated functionality the agency was beginning to need. Nor was it built to support the next-generation features Latah County—and most PSAPs throughout the country—will soon be required to provide.

"At some point," says Rosen, "the State of Idaho is going to require its PSAPs to handle the variety of communication formats—data, voice, text, and images—people are now using routinely. This is something we all need to prepare for."

The case for updating Latah County's communications equipment was compelling. As a result, Latah County received a grant from the Idaho Emergency Communications Commission and additional Emergency 9-1-1 funds to obtain and install the new call-taking and dispatch systems necessary to make their operations current and prepare them for the future.

Valence and Zetron

As Latah County's ongoing and official "single-source provider," Valence Wireless & Communications of Spokane, Washington, was the automatic choice to help the agency obtain and install their new communications equipment. It was also determined early on

that Zetron would provide the dispatch and call-taking systems for the project. "Latah County is a long-time and very satisfied Zetron customer," says Valence president, Michael Deakins "Plus, they had spoken with neighboring Shoshone County, who was very happy with their recently installed Zetron MAX Dispatch system. Both agencies also realized that using the same equipment would improve their ability to back each other up."

Why remote operations matter

The MAX systems' support for remote operations over IP was particularly appealing to Latah County. Deakins explains why.

"Several years ago, someone across the street from dispatch was shooting a rifle into the center," he says. "The operators were evacuated to a backup site that was connected to the main center over a dedicated leased line. As I discussed the MAX systems with Latah County, I explained that they'd be able to eliminate their leased line and use IP to connect their backup to the main center over their network. This was important to them. They haven't had to use their backup very often, but the shooting incident taught them that when they need it, they really need it."

For all of these reasons, Latah County went ahead with a plan to install three positions of MAX Dispatch and Call-Taking; two at the main center and one remote position at their backup location.

An aggressive but doable schedule

A final go-live deadline for the project was established, then milestones were set to support it. Rosen admits that the schedule was aggressive, but he was confident that it was doable. "Whenever someone started telling me why they couldn't do it, my response was, 'OK, now tell me how you *will* do it.'"

A temporary center

Valence began by setting up an area in the courthouse basement to serve as a temporary communications center while the main room was being demolished and renovated.

"Setting up the temporary center was a substantial amount of work," says Deakins, "but it kept things running, and it also gave the framers, carpenters, and painters the freedom to do their work without having to worry that they might interfere with the center's operations."

System adaptations

Valence staged, and tested the equipment at their office before installing it at the center. They also configured and adapted it to meet the customer's unique specifications.

One adaptation involved placing a callbox at the entry area and integrating the box into the consoles. The callbox allows visitors entering the area to simply press a button to call dispatch. The dispatchers can then answer the call from their consoles.

Another adaptation involved integrating a backup analog phone with the center's existing administrative lines. This ensures that, even if the main system suffers a catastrophic failure, their three main administrative lines can still be answered by dispatchers.

"Preparing them to connect to their remote position over the network was another important adaptation," says Deakins. "The network had to be set up and provisioned to support this change."

A successful transition

The transition to the new equipment was handled carefully and methodically. Each position was tested and verified before being brought online. The care with which this was done paid off.

"There were no disruptions in service at all," says Deakins. "Once the new equipment was in place, we left the old system up for 48 hours, but only as a security blanket. The few issues that did come up were dealt with very successfully before and during the cutover."

Pre-wired for expansion

The center and its new equipment have been functioning for nearly a year. And Rosen is happy with how things have turned out. "It's all working very well," he says. "The new equipment is flexible, easy to use, and pre-wired to expand. It also gives us the capability to offer our services to other agencies that might be interested in using them."■

> ❝The new equipment is flexible, easy to use, and pre-wired to expand.❞
>
> **Mike Rosen,** *Support Services Supervisor, Latah County Sheriff's Office*

Zetron's MAX Dispatch

Zetron's IP-based MAX Dispatch supports easy expansion, resource sharing across systems, and remote operations. It also offers an easy, cost-effective migration from legacy to emerging technologies.

Features:

- **Steamlined UI:** Displays the information you need when you need it.

- **End-to-end network redundancy:** Keeps system operating even if network goes down.

- **Easy installation, maintenance:** Supports remote configuration and maintenance. Monitors network performance.

- **Flexible, scalable:** Scales from single LAN to multi-node, geo-diverse WAN.

Zetron, Inc.
PO Box 97004
Redmond, WA   98073-9704

COME SEE US AT THESE UPCOMING TRADE SHOWS:

APCO International
August 3-6, 2014 | New Orleans, Louisiana

Kentucky ESC
September 2-4, 2014 | Louisville, Kentucky

North Carolina NENA/APCO
September 7-11, 2014 | Sunset Beach, North Carolina

Pennsylvania NENA
September 10-12, 2014 | State College, Pennsylvania

For a more complete listing of Zetron-attended events, visit **www.zetron.com/news/tradeshows.**

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

The *Advantage* is published by Zetron, Inc.
Direct all comments and suggestions to **advantage@zetron.com**

ZETRON
www.zetron.com