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MAX Dispatch
Equips
3
PSAPs for
Regional Operation

PENNSYLVANIA

MAX Dispatch Equips 3 PSAPs for Regional Operation

Multi-agency Solution Will Improve Redundancy, Cut Costs

With their new installations of Zetron's MAX Dispatch system, three Pennsylvania PSAPs are preparing to share, access, and use each others' radio resources.

What do you do if you're an emergency communications center director, and a storm of Sandy proportions hits your county, wiping out your call-taking and dispatch operations just when your community needs them most?

Until recently, you'd have had to move your operations to a backup location equipped with the extra radio and phone systems necessary to resume your center's activities. This assumes you had already funded, purchased, and set up the additional site this would require.

But with the advent of IP-based communication technologies, new, more-flexible, less-expensive alternatives are emerging.

As a result, several public-safety agencies in Pennsylvania are becoming equipped to back each other up from their own locations with just the click of a mouse. Thus far, the nine counties that make up Pennsylvania's Northern Tier Regional Telecommunications Project (Clearfield, Jefferson, Elk, Cameron, McKean, Clarion, Warren, Crawford and Forest) are already able to answer 9-1-1 calls for each other if and when the need arises. And three of them—Elk, Clarion,

and Clearfield—have just taken this a step further. They have each installed Zetron's MAX Dispatch system. This will eventually allow them to extend their regional backup capability to include radio dispatch as well.

The challenge for public safety

The Northern Tier Telecommunications project began when nine counties in Northern Pennsylvania decided to confront head-on a problem that is common to many public safety answering points (PSAPs) throughout the United States. They need to find ways to fund and maintain their communications equipment and ensure that it can support emerging standards and technologies—even as their budgets decline.

Some communities have responded by merging their numerous smaller communications centers into a single, consolidated agency. Although this can increase efficiencies and cut costs, it can also reduce local responsiveness and eliminate jobs.

Michael McGrady had what he thought was a better idea.

The rationale for regionalization

The president of MCM Consulting Group, Inc., McGrady had been asked to help the member counties of the Northern Tier Telecommunications Project create a comprehensive strategic plan that would allow them to fulfil their respective missions and cut costs.

He proposed that instead of consolidating and reducing their number of PSAPs, the Northern Tier group create a regional, Next Generation 9-1-1 network over which they could share a variety of

resources and provide backup for each other. Each member of the group would have the freedom to participate in the regionalization of any or all of the services a PSAP typically provides, from 9-1-1 call-taking and radio dispatch to mapping, computer aided dispatch, and call logging. This approach, McGrady reasoned, would keep the agencies current; improve the efficiency and redundancy of their operations; and reduce their equipment, maintenance, and network costs.

"This is about regionalizing technology, not consolidation," McGrady explains. "When you regionalize, you not only create more redundancy and efficiency in your system, but you maintain the independence of your agency, prolong the life of your PSAPs, and preserve jobs." He adds that state and federal 9-1-1 funds are becoming increasingly available to "…incentivize regional technology projects."

The first step, but not the last

The entire Northern Tier group agreed to participate in what would be the first phase of their regionalization project. It involved setting up a fiber network and installing the updated 9-1-1 equipment needed to support the sharing of 9-1-1 call-taking operations across all nine counties.

This phase went live in mid-2013. Since that time, the participants in the project have indeed been able to answer each others' 9-1-1 calls, and a tenth county (Erie) has joined the system.

This was a great first step. But it wasn't the last.

Clearfield County Emergency Services 9-1-1 director Joe Bigar explains why: "With a multi-agency phone system, if Elk County is busy, we can answer and process their phone calls," he says "but we can't dispatch for them."

The next logical step would be to extend the multi-agency capability to the Northern Tier counties' radio dispatch operations.

The goal of this phase of the project would be to eventually access and use each others' radio channels and other radio resources. If one of the agencies were to be evacuated, its dispatchers would be able to walk into one of the other agencies, sit down at a console, and start dispatching as if they were at their own center. Or the incapacitated center's operations could be assumed by one of the other counties' dispatchers from their center. Either way, the integrity of the disabled PSAP's operations would be maintained.

Elk, Clarion and Clearfield counties lead the way

Elk, Clarion, and Clearfield counties were the first in the Northern Tier group that decided to install the new dispatch equipment necessary to regionalize their dispatch services. Regionalization wasn't their only consideration, however. All three PSAPs' dispatch systems had reached their "end of life."

"The manufacturer of our existing system told us that we could continue to use it if we wanted to," says Clarion County 9-1-1 director Lance Theiss, "but if we had issues, we were on our own."

They all decided that not only would they install new dispatch equipment, but they would each purchase and install the same manufacturer's equipment so it would be interoperable. They also agreed that new equipment would be IP-based and would have to support technology that would allow them to regionalize their dispatching.

> **"Our MAX Dispatch system met every expectation we've thrown at it. Next will be the Portal… It offers wonderful possibilities that we're looking forward to."**
>
> *Mike McAllister,* Director, Elk County Emergency Management

'The biggest bang for the buck'

Zetron's IP-based MAX Dispatch system was not the only system considered for the project. But it was the one that would give them, as Bigar puts it, "…the biggest bang for our buck."

It offered a host of highly desirable features and functionality. Its configurable screens could be laid out to mimic the screens of the previous equipment at each center. This would minimize the number of new things dispatchers would have to learn to operate the new equipment. MAX Dispatch is also inherently easy to use.

"It's a top priority to make things easy for our dispatchers," says Clearfield County systems administrator, Jeremy Ruffner. "We liked the MAX system because it would be simple for them to learn and use."

Last but not least was the fact that with the MAX Dispatch system, the three agencies would be able to use Zetron's newly released geo-diverse MAX Dispatch Portal.

The MAX Dispatch Portal

The MAX Dispatch Portal is a licensed software service that will eventually link the three counties' systems and allow resource sharing and backup between them.

Although the Portal is not being implemented immediately, it is the vital piece that will put the three PSAPs on the path to regionalization.

(For more information about Zetron's MAX Dispatch Portal, see the Zetron Product Note on the next page.)

Installing MAX Dispatch

The three PSAPs installed their new MAX Dispatch systems throughout late 2013 and early 2014.

Elk County was first.

"We installed the new system in parallel with their old one and kept them both running until we had all of the details smoothed out," says Greg Muhich, owner of Chestnut Ridge Radio Communications, the Zetron reseller who handled the project. "Elk County's installation includes six regular positions—which is what they had before—and two on tablets," Muhich continues. "So in addition to their fixed positions, they have two that they can use to quickly set up remote and mobile operations if and when they need them."

Elk County's installation went live in December of 2013. Shortly thereafter, Clarion and Clearfield followed suit, with Clarion's installation of MAX Dispatch going live in January of 2014 and Clearfield's going live in February.

"I really like the MAX system," says Theiss. "My dispatchers like it too, and if our dispatchers like it I'm happy. Plus, it's easy to administer. I can go in and change something easily and quickly if need be. It's very user friendly."

Muhich says his experience with Zetron was exceptional. He has particular praise for Maari Adams, the Zetron Territory Manager who worked with him on the project. "Maari is terrific," he says. "She kept on top of everything, followed up beautifully, and was a pleasure to work with. So were Zetron's tech support people and engineers. I really look forward to working with them again."

'We're on our way!'

The three counties have completed their new installations of MAX Dispatch and are pleased with the results. They are also eagerly anticipating the additional benefits the MAX Dispatch Portal will bring.

"Our MAX Dispatch system met every expectation we've thrown at it," says Elk County emergency management director, Mike McAllister. "Next will be the Portal and working with our neighboring counties to discover what we'll be able to do with

Ron Wolbert, Clarion County 9-1-1 Supervisor.

it, what features we'll want, and how we'll work together to implement it. It offers wonderful possibilities that we're looking forward to. We're on our way!"

"Many of the other counties in the Northern Tier are using the same aging dispatch system we just replaced," adds Ruffner. "Those who will be replacing their equipment in the next few years are also looking at installing MAX Dispatch. When they do, they'll be able to join us in a regional dispatch that could eventually include most if not all of the Northern Tier members." ∎
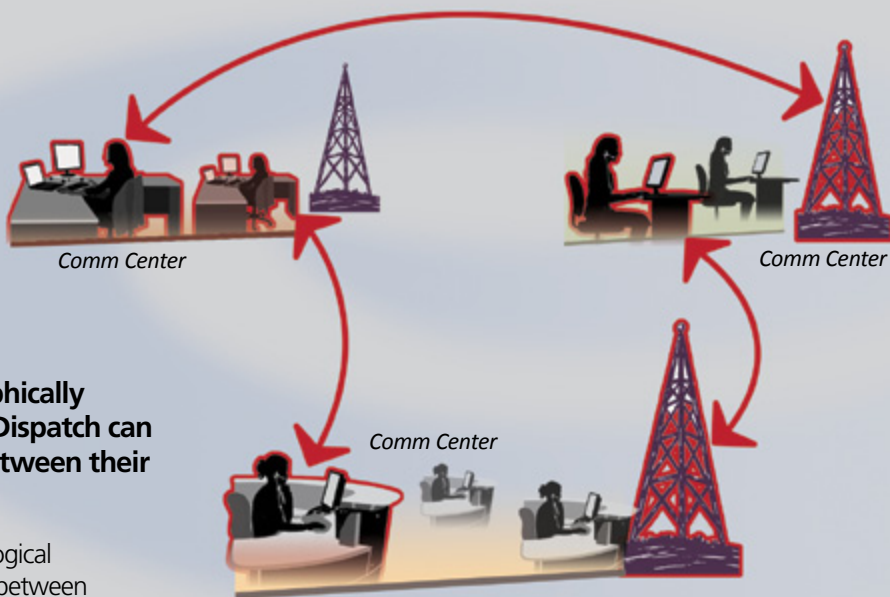

Zetron's MAX Dispatch Portal

Connecting Geo-diverse Systems

With Zetron's MAX Dispatch Portal, geographically diverse communication centers using MAX Dispatch can seamlessly link and share radio resources between their systems.

Zetron's MAX Dispatch Portal is an important technological advancement that enables complete communication between sites running separate MAX Dispatch systems. Previously, this type of communication between sites required connections by each individual resource. But with the MAX Dispatch Portal, geographically diverse communication centers can seamlessly access and share resources such as radio channels and I/O controls.

Because MAX Dispatch allows communications to take place without requiring multicast traffic to be passed across a wide area network, it helps reduce bandwidth requirements. In addition, the software can be configured so dispatchers at one site can view, access and use the channels and other resources at another site at all times or only as needed. This allows separate sites to provide flexible and robust backup for each other.

Comm Center

Comm Center

Comm Center

The MAX Dispatch Portal allows separate dispatch centers running MAX Dispatch to share radio resources and provide mutual backup.

MAX Dispatch Portal:

- Supports the deployment of large-scale, geographically diverse dispatch systems, allowing remote consoles or separate systems to access and share resources.
- Eliminates the need for multicast support between locations; reduces bandwidth requirements.
- Offers great flexibility in system design/architecture.
- Can be configured to allow access and sharing on either an ongoing or as-needed basis.

What's Good for Westbrook Is Good for Falmouth

Two Maine Comm Centers Pick MAX Dispatch for Their Move to IP

The public-safety agencies at Westbrook and Falmouth, Maine, both recently upgraded to Zetron's MAX Dispatch system. The system's user friendliness and flexibility, and Zetron's good reputation were just a few of the reasons why they chose the system.

Greg Hamilton was getting nervous.

As the director of the public safety answering point (PSAP) and dispatch center for the City of Westbrook, Maine, he knew that the dispatch system his agency had been using for 10 years was becoming obsolete. If the system were to fail, there was no guarantee he'd be able to obtain the parts that might be required to fix it.

In nearby Falmouth, Maine, Tom Brady was facing a similar situation. The aging dispatch system in the communication center he directs was also no longer supported by the manufacturer.

Both agencies needed new dispatch equipment. And both directors knew that they wanted to obtain Zetron dispatch systems. But each faced the same dilemma: Should they buy and install Zetron's analog dispatch system? Or would it be better to prepare for the future and choose Zetron's IP-based MAX Dispatch system?

Because Westbrook was able to secure funding for their project first, they were also the first to answer this question. This gave Falmouth the luxury of waiting to see how things turned out for Westbrook before having to make the decision themselves.

Public safety in Westbrook, Maine

Located in Southwestern Maine, Westbrook has a population of roughly 18 thousand and is considered a suburb of Portland. Its Emergency Communications Center is a certified PSAP that handles 9-1-1 calls for Westbrook and the towns of Falmouth and Yarmouth; it also provides dispatching for Westbrook's police, fire, and emergency medical services (EMS) departments.

Good products and a good reputation

Greg Hamilton explains why he was certain that his agency's next dispatch system should be a Zetron product.

"I wanted our new system to be from a good manufacturer with a proven track record," he says. "I had used Zetron equipment when I worked in and managed another dispatch center. So I knew Zetron puts out good products and has a good reputation in the industry."

Choosing MAX Dispatch

To decide which Zetron system to buy—analog or IP-based—Hamilton consulted with Radio Communications Management (RCM). RCM is a Zetron seller with offices throughout Maine. As

Westbrook's radio equipment and service provider, RCM would be obtaining, installing and maintaining the new system for them.

Radio Communications Management president, Scott Rivard, encouraged Hamilton to seize the opportunity to move to IP and install Zetron's MAX Dispatch. "The industry trend is definitely toward IP," says Rivard, "and the MAX Dispatch system was getting very positive reviews. I felt that this would be a good choice for Westbrook."

Hamilton agreed. "I was drawn to the system because it would allow us to customize our screens and name things the way we want to," he says. "It would grow along with us fairly easily. And RCM would be able to remote in to configure things and diagnose problems without having to send a technician out. This would save us time and money."

After weighing all the factors, Westbrook decided to purchase and install four positions of Zetron's MAX Dispatch system.

The installation at Westbrook

Westbrook's new system was shipped to RCM, where it was set up, tested and configured before being taken to the customer's site.

"We staged it in our office so we could work out the kinks and make sure that its final installation would go as quickly and smoothly as possible," says Rivard. "When we took it to Westbrook, all we had to do was run Ethernet cables from the dispatch center to the radio room and plug them in. We paralleled all of the radio channels from the old console to the new one and, for a while, had the systems running side by side."

One MAX Dispatch console position was set up in the dispatch center so the dispatchers could get familiar with it. During this stage of the project, the dispatchers also gave input that was then used to refine the screen layouts.

After about a week, the three remaining new console positions were installed, the cutover took place, and the old system was removed. The transition was complete.

Backing up Cumberland County

One unique and cost-effective aspect of Westbrook's installation was the way it was set up to provide backup for the area's regional PSAP, the Cumberland County Regional Communication Center (CCRCC).

"We were able to use Zetron's iRIM [Intelligent Radio Interface Module] and two Kenwood radios to put all of Cumberland

Dispatcher Matt Norton monitors multiple screens at the Westbrook Emergency Communications Center.
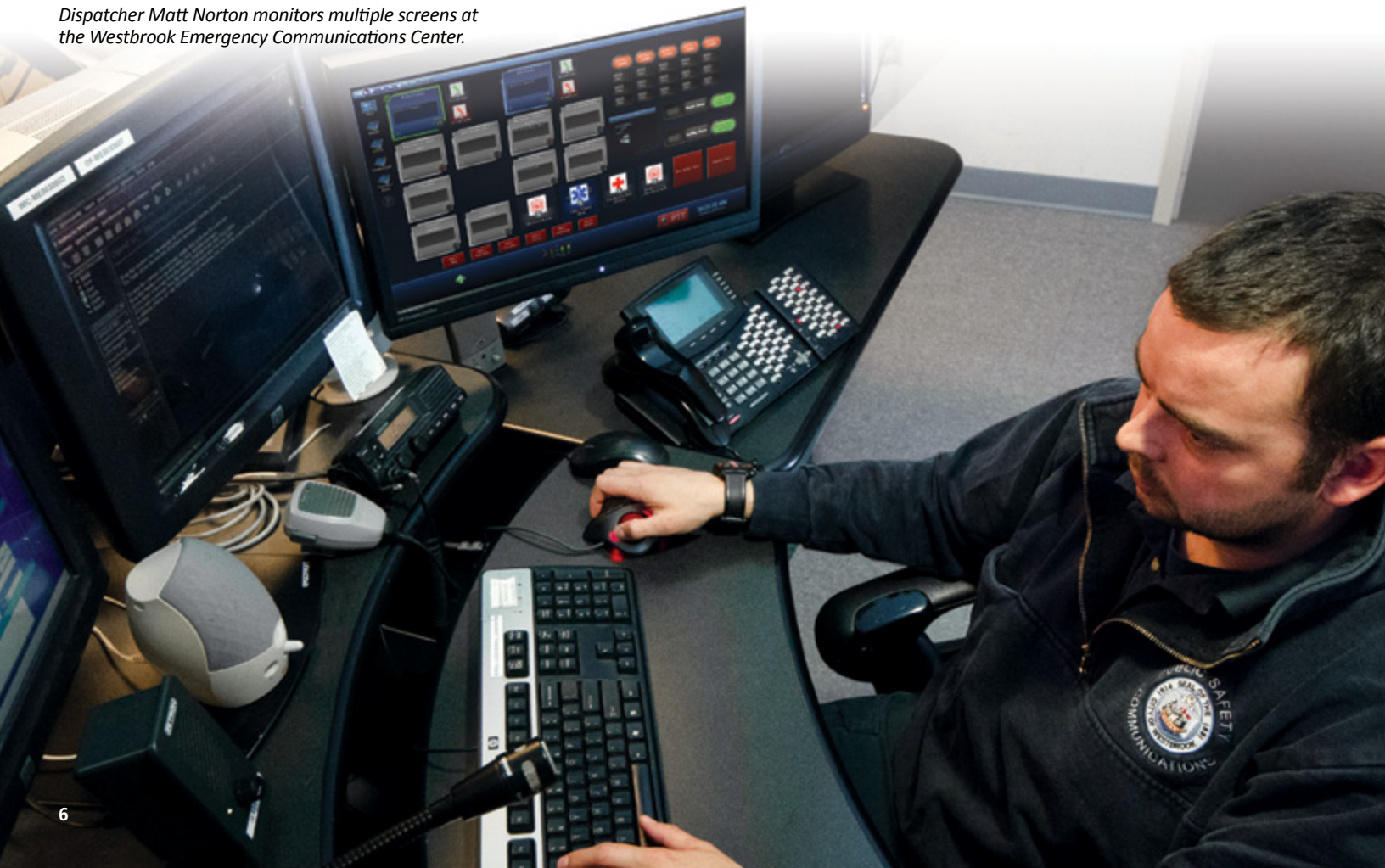
The Falmouth Public Safety Communications Center is a division of the Falmouth Police Department.

County's fire tones and radio channels on Westbrook's consoles," says Rivard. "With a simple, low-cost licensing upgrade to the iRIM, we were able to control the Kenwood radio functions directly from the MAX Dispatch consoles. It's a great cost savings because it makes all of the CCRCC's channels available and displays them on the MAX Dispatch consoles at Westbrook. And we didn't have to use a separate radio for every agency the CCRCC supports. If Cumberland County ever has to evacuate their center, they can go to Westbrook and dispatch from there."

The installation at Falmouth

Tom Brady at the Falmouth Communication Center was also looking for a dispatch system that would carry his agency into the future. And he was well aware of the installation at Westbrook. Although his center is not a 9-1-1 answering point, it dispatches police, fire and EMS for the towns of Falmouth and Yarmouth, and fire and EMS for the town of North Yarmouth. "We needed something that would be with us for quite some time," he says. "And we wanted it to be top-of-the-line equipment based on top-of-the-line technology."

Brady had been introduced to Zetron's MAX Dispatch at a public-safety conference and also visited Westbrook to look at their newly installed system. "I liked what I saw," he says. "MAX Dispatch offered the technology, functionality, and ease of use we were looking for. When we sat down with our equipment provider RCM [the same vendor that supports Westbrook] to discuss whether it would be a good fit for us, they said it was a good way for us to go. Not only does RCM understand our agency and what we need, but they'd just installed the system for Westbrook, so they knew the equipment inside and out."

Falmouth subsequently purchased two positions of MAX Dispatch. RCM installed it, conducted the training, and removed the old system all within a period of about a week. It was a straightforward, seamless installation.

'My dispatchers are happy'

Greg Hamilton and Tom Brady both report that their new MAX Dispatch systems are performing just as they'd hoped.

"I'm very happy with MAX Dispatch," says Hamilton. "I'd certainly recommend it. It's working very well for our dispatchers, and it has a very small footprint; everything's about space when you're talking about a dispatch center." Hamilton also has kudos for RCM. "Their service has been exceptional," he says.

"The installation process went really well and didn't disrupt our operations at all," adds Brady. "We really like the new system's flexibility. Also, we're ready for the future. If we ever need to expand our services, the system has the capacity to support us in that as well." ∎

MAX Dispatch

Zetron's flexible, IP-based MAX Dispatch supports easy expansion, resource sharing across systems, and increased mobility and remote options. It also provides an easy, cost-effective migration path from legacy to emerging technologies.

Features:

- **Streamlined UI:** Displays information pertinent to the task at hand. Reduces clutter. Minimizes operational steps.

- **High reliability:** End-to-end network redundancy keeps the system up and running even if the IP network goes down.

- **Easy installation and maintenance:** Continuously monitors network performance. Supports remote configuration and maintenance.

- **Flexible, scalable:** Utilizes centralized and distributed architectures. Scales from a single LAN to a multi-node, geographically diverse WAN. Adapts to evolving technologies.

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UPCOMING TRADE SHOWS

APCO Australasia
April 29 - May 1, 2014 | Melbourne, Australia

OAFC
May 3 - 7, 2014 | Toronto, Ontario

Western Regional APCO
May 6 - 9, 2014 | Litchfield Park, Arizona

UTC Telecom
May 6 - 9, 2014 | Phoenix, Arizona

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

For Zetron factory training, please contact Zetron before scheduling as dates are subject to change.

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