MISSION-CRITICAL COMMUNICATION SYSTEMS

MAX Dispatch Provides IP Functionality, Interoperability, Narrowbanding Support



With the MAX Dispatch user interface, dispatcher Jeremy Herr can highlight the resources he needs for a particular task.

With the installation of a new radio network and Zetron's MAX Dispatch system, Clinton County Pennsylvania's Department of Emergency Services (CCDES) is now narrowbanding compliant and equipped with a dispatch system that provides updated functionality, improved interoperability and future readiness.

Thanks to a new radio infrastructure and Zetron's MAX Dispatch system, the Clinton County, Pennsylvania, Department of Emergency Services (CCDES) was ready for narrowbanding well ahead of the FCC's January 1, 2013 deadline. But they are reaping other important benefits from the equipment as well. Their MAX Dispatch system integrates with their radio network and offers advanced functionality, improved interoperability and an innovative user interface that their dispatchers love. It also provides the CCDES with an IP-based dispatch solution that will serve them well into the future.

Clinton County and the CCDES

Located in north-central Pennsylvania, Clinton is a small, rural county consisting primarily of agricultural and state forest lands With a population of roughly 39,300 and an area of about 900 square miles, its population density averages only 43 people per square mile.

The Clinton County Department of Emergency Services was formed in 2005 when the county's 9-1-1 center and Department of Emergency Services merged into a single agency. As the county's full-service dispatch center and public safety answering point (PSAP), the CCDES oversees the county's 9-1-1, emergency management, and HAZMAT programs, and provides dispatching for all fire, emergency medical services (EMS) and municipal police departments within the county.

Technologically advanced

Despite the county's rural character, the CCDES is one of the most technologically advanced PSAPs in the area. Its equipment includes a Zetron Series 3300 VoIP call-taking system that was installed in 2010, a computerized mapping program, and a sophisticated computer-aided dispatch system. Prior to the recent equipment installation, however, the agency's radio dispatch system wasn't quite up to par.

"It had reached the end of its life cycle, and we were no longer able to get parts for it," says CCDES director, Kevin Fanning.

The strategic plan

The project to update the CCDES's equipment began in 2009 when Clinton County's long-time technology consultant, MCM Consulting Group (MCM), conducted a needs assessment for the CCDES. The assessment results were used to develop a strategic plan for the CCDES that included a new radio infrastructure and dispatch system, as well as an eventual move to a larger facility.

Choosing MAX Dispatch

After considering a number of dispatch solutions, the CCDES chose Zetron's Series 4000 dispatch console. Then, procedural issues unrelated to the system caused some delays. By the time the county was ready to resume the project, Zetron's MAX Dispatch system had been released. This opened up an attractive new possibility.

"We asked Zetron to demo the MAX system for us and the customer," says Mike McGrady, president and owner of MCM. "Once we saw it, we all felt that MAX was the best choice. It offered updated features and would also integrate easily with the new radio network we were installing to move the CCDES to narrowbanding."

"Our telecommunicators really liked the MAX system, and so did I," adds Kevin Fanning. "We liked its functionality and graphical user interface, which is much easier to navigate and use than other systems. Plus, the MAX system came in at a better price than the other IP-based systems we looked at."

After reviewing all of their requirements and which solution would best meet them, Clinton County decided to go with the MAX Dispatch system.

The solution

The solution for the CCDES would include seven positions: Three would be used for routine dispatching; a fourth would be used for training and for dispatching when the agency got busy. Another position would be set up in the Emergency Operations Center. And the remaining two positions would be kept in storage until the CCDES moves to its new facility in about a year.

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MAX Dispatch gives you the solid reliability and performance you expect from Zetron in a breakthrough, IP-based dispatch console system.

- Intelligent UI: Highlights information pertinent to the task at hand; reduces information overload.
- Built-in Network Health Monitor: Provides constant feedback about network status.
- Advanced tools: Streamline installation and minimize field time.
- Dual connections: Ensure end-to-end network redundancy.



The twisted remains of Seaside Heights' famous roller coaster stand as a stark reminder of Sandy's damaging power.

Zetron and its resellers expedited equipment orders and deliveries to public-safety and law-enforcement agencies on the East Coast whose communications systems—and lives—were severely impacted by Hurricane Sandy.

In late October, Hurricane Sandy ravaged communities along the Eastern Seaboard from Florida to Maine. Technically a "post-tropical cyclone" by the time it made landfall, the storm was still powerful enough to wreak unprecedented damage to parts of New Jersey and New York City's boroughs. Its surge swamped the New York City subway system and flooded streets in Manhattan's financial district. Portions of "The City That Never Sleeps" were without power and dark for days.

Many of the region's police and fire departments were seriously affected by the storm. Some agencies suffered major if not total damage to structures and equipment. And many police and fire fighters' homes suffered extensive damage as well.

But these are the types of circumstances that often reveal the strength of the bonds that exist between members of a community, including the public-safety community Zetron serves. All Service Controls of Oceanside, New York; Quality Communications of Lakewood, New Jersey; and Comtronics Wireless Communications of Quincy, Massachusetts are just a few Zetron resellers who rallied with Zetron to help customers get back on their feet under very difficult circumstances.

'The surge flooded Long Beach'

Long Island was hit hard by Sandy, especially the city of Long Beach on Long Island's southern coast. "The surge flooded Long Beach, including their fire department," says Paul Grim, owner of All Service Controls. "The Long Beach fire station lost everything on the ground level. Water in the central fire house rose to $4\frac{1}{2}$ feet. It didn't reach their dispatch center one floor up, but power surges and generator failures made their dispatching sporadic and undependable."

Long Beach Fire was able to do minimal dispatching from its mobile-command vehicle, but this setup provided only partial functionality. Eager to restore full dispatch communications as quickly as possible, Long Beach Fire contacted Paul Grim to help them find replacement dispatch equipment.

He had a solution for them within a matter of days.

"We'd recently purchased a Zetron Model 4010 standalone dispatch console for Oceanside, which is near Long Beach" says Grim. "Oceanside wasn't yet using it, so I got their permission to loan the console to Long Beach. The next day, we took the 4010 from Oceanside to Long Beach, got it up and running, and Long Beach Fire was able to resume full dispatching. We also helped restore several repeaters and communications for the City and for the communities of Island Park and Lawrence-Cedarhurst."

A life saver

Grim says that he was the recipient as well as the provider of post-Sandy help. And the help in his case wasn't limited to equipment.

"Kip Wilson [Zetron's territory manager for the Northeastern U.S.] called and asked, 'What do you need?' 'Food, fuel and generators,' I told him. So he drove down with all of those things. When he first arrived, I couldn't even offer him a cup of coffee because we had no power. Thanks to Kip, we had food that would tide us over, and I was able to set up a generator at home and work from there. Kip was a life saver!"

Top of the list

Expediting Zetron's ordering and shipping process was another factor that helped ensure replacement equipment could be delivered as quickly as possible to those who needed it. In fact, this is Zetron's policy at such times. "Those who need help go to the top of the list, whether they've been a Zetron customer in the past or not," says Scott McGinnes, Zetron's inside sales manager for the Northeastern and Mid-Atlantic U.S.

In some cases, paperwork also had to be finessed. "Some municipal buildings were wiped out, so our customers didn't even have access to purchase orders," says Quality Communications senior account manager, Dick Cottrell. "But people at Zetron just said, 'Let's get the equipment ordered and shipped; we'll deal with the paper work later.' This helped tremendously because, frankly, there was no paper to be had!"

"Our shop is located just 20 miles north of Barnegat Bay, New Jersey, where Sandy made landfall," Cottrell continues. "Many of our customers were affected. The police station at Highlands, a few miles from 'ground zero,' went entirely underwater. Thanks to the streamlined ordering process, we had a new Zetron dispatch console ready for them as soon as they got a trailer to put it in. This will be their 'temporary' location, but temporary might be as long as a two or three years. That's how long they expect it will take them to rebuild."

'The console never missed a beat'

At Seaside Heights, another location on the Jersey Shore, the hunkering, partially submerged wreckage of a roller coaster has become a symbol of the extreme damage Sandy brought to the town. So it's something of a surprise to discover that their police department's dispatching operations continued without interruption throughout the storm. This was due in large part to Quality Communications' recent update of their Zetron Series 4000 dispatch system.

"I got a text from the Seaside PD saying that while everything was falling apart around them, their Zetron system was working absolutely perfectly," says Cottrell. "The console never missed a beat; it performed perfectly the whole time."

Lighting strike

Farther north, in Whitman, Massachusetts, Comtronics Wireless Communications had recently installed a new, two-position Zetron Series 4000 dispatch system at the Whitman Police Department. A severe lightning strike—yet another effect of Sandy—destroyed both of the consoles.

Comtronics and Zetron went into high gear. "Working with Comtronics, we immediately shipped them a temporary replacement to get them back online," says Kip Wilson. "Then we upgraded them to Zetron's MAX Dispatch system as soon as they were ready."

The right thing

Actions like these obviously aren't enough to restore an entire community, but this is where restoration begins. And while it's often said that good customer care is good business, in the face of a disaster like Sandy, it becomes abundantly clear that helping those affected by such an event is also the right thing to do.

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Dick Cottrell

Senior Account Manager, Quality Communications



Dispatcher Bob Fetzer answers a call at Cheektowaga's new communication center.

Zetron's Series 4000 dispatch system was recently installed at the Cheektowaga, New York, communication center. The system is delivering the updated features and functionality the agency was looking for in a solution that is also cost-effective and easy to use.

When it comes to communications technology, it's easy to underestimate the value of equipment that is simple to program, learn and use. But in a busy public safety answering point (PSAP), simplicity is a top consideration. When equipment is easy to learn, dispatchers can ramp up quickly and do their jobs accurately and without undue focus on the technology. This results in faster response times—something all PSAPs strive for. When the equipment is easy to program and administer, minor changes can be handled in-house and on the fly, without requiring expensive service calls.

These are some of the reasons why Cheektowaga, New York, decided to equip their new communication center with Zetron's Series 4000 dispatch system.

From crabapples to suburbs

Cheektowaga takes its name from an Iroquoian word that means "the place of the crabapple tree." Although it was originally a rural farming community, Cheektowaga underwent extensive development in the post-war boom of the 1950s, and is now the second-largest suburb of Buffalo, New York. With a population of about 88,000 and an area of 29.6 square miles, Cheektowaga averages 3,187 people per square mile. (By comparison, Clinton County, which is also featured in this issue, averages only about 43 people per square mile.)

The Cheektowaga communication center

The Cheektowaga communication center provides dispatching for the town's police department, ambulance, and 12 fire districts. They also answer 9-1-1 calls that originate from landline phones. (9-1-1 calls originating from cell phones are answered by the county PSAP.)

Paul Hockwater, the center's senior public-safety dispatcher, explains why they decided to obtain and install a new dispatch system. "We were building a new town court that included an entirely new 9-1-1 dispatch center with updated furniture and other new communications equipment. We also needed to add more operator positions to our dispatch system, and our existing equipment wouldn't support that. So we decided to make a new dispatch system part of the communication center project."

Picking the Series 4000

Zetron reseller, Saia Communications, helped Cheektowaga select their new dispatch equipment. "Saia is our long-time equipment and maintenance provider," says Hockwater. "They've been doing our radio work for over 20 years, and we have a very good relationship with them. They're also right down the street from us, so they're able to respond quickly when we need them."

The project was put out for bid, and two manufacturers responded. One bid was from the manufacturer of their existing system; the other was from Zetron. Because Saia was installing a Zetron Series 4000 system for a customer nearby, they invited Hockwater and other representatives from Cheektowaga to look at the system.

"When we saw the Zetron system, it was obvious that it was much easier to use than the other system we were considering," says Hockwater. "We have 28 dispatchers who would all have to get up to speed on the new equipment quickly, so the Zetron console's ease of use was a real plus. Because much of our dispatching is for our city fire departments, we also need a system that will be able to support us in that. The Zetron system met this requirement as well."

The Series 4000 also came in at a better price than the competitor's system. In these days of tightening budgets, cost-effectiveness is a key concern for public-safety agencies. So even though it meant switching manufacturers, it wasn't much of a contest. Cheektowaga chose a six-position Zetron Series 4000 dispatch system for their new communication center.

A seamless transition

The implementation of the new dispatch system took place from about mid-March to early April of 2012. Because the system was being installed in a new center that wasn't yet operational, it was a relatively uncomplicated process that didn't interrupt the agency's routine operations.

"Their dispatchers kept working in the old space while we installed the new equipment in the new center," says Saia project manager, Chris Krzemien. "Once we got one of the new consoles up and running, we kept running the old system and brought the dispatchers over one at a time to introduce them to the new console and its features. When the day arrived to make the final cutover, the dispatchers left their old consoles and went into the new center and started using the new consoles. It was seamless."

Door controls and panic buttons

Several important security features were added to Cheektowaga's Series 4000. Icons added to the console screens allow dispatchers to control doors and gates in the garage where prisoner are first brought to the facility. "Panic buttons" were installed in the town's two courtrooms, in the chambers of its two judges, and in the office of the town clerk. The panic buttons are linked to the console system so that when a button is pushed, an alert is sent to the console screens, prompting dispatchers to send help immediately to the scene.

The Series 4000 delivers

Cheektowaga's Series 4000 has been running for almost a year, and in that time, it has been tested and proven. "We've had some crazy police and fire-related incidents," says Hockwater. "And even during those busy times, the system has performed very well."

"The Series 4000 is also easy to use, easy to train people on, and easy to manage," Hockwater continues. "Our operators are able to catch onto it very quickly. And I make most of the programming changes myself when we need them and without requiring a service call. The system's easy programming minimizes our down time and cuts our maintenance costs."

From all accounts, Cheektowaga's Series 4000 is not only performing up to expectations, but delivering amply on the qualities for which it was originally chosen.

The [Series 4000's]
 easy programming
 minimizes our down
 time and cuts our
 maintenance costs.**

Paul Hockwater Senior Dispatcher, Cheektowaga Communication Ctr.



Series 4000

Communications Control System

The Series 4000 is designed for mediumsized communications centers. In addition to exceptional reliability, it offers easy programming and economical upgrades.

The Series 4000 includes:

- Support for multiple trunked radio formats/protocols.
- Integrated instant-recall recorder that captures radio traffic on each channel.
- P25 compatibility and interoperability.

Featuring three styles of operating positions and two common controller sizes, the Series 4000 can be scaled to accommodate from 2 to 48 channels and from 1 to 16 operator positions.

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Mike McGrady
President and Owner, MCM Consulting Group, Inc.

The implementation

Local systems integrator and Zetron reseller, TransCore, worked with MCM and Zetron to implement the new MAX Dispatch system.

"The equipment was shipped to TransCore," says Fanning. "They set it up at their facility, burned it in, and did all the programming. Then they brought it to our center and installed it. Once it was in, we ran the old and new systems in parallel for about six weeks. This gave us time to settle in and get familiar with the new equipment and also gave our dispatchers time to practice and get comfortable with the new console."

The final cutover to the MAX Dispatch took place in August of 2012.

An easy transition

The MAX Dispatch system helped ease the CCDES's transition to their new radio network—an eight-site Harris simulcast repeated system.

"We installed the MAX system first and connected it to our existing network," says McGrady. "But we'd also programmed MAX for the new network. So when we were ready to migrate to the new network, the telecommunicators just had to go to a new screen on their MAX console. The new network was right there and ready to use."

Into the future

McGrady and Fanning both have good things to say about the project and its outcomes. "The system is working very well," says McGrady. "And the planning, installation, and acceptance testing with Zetron and TransCore went very smoothly."

"The MAX system is meeting our goals," says Fanning. "It supports the new network and can easily expand when we move to our new space. Plus, it has improved our interoperability. Now we can easily patch or create a link between the statewide 800 MHz system and our radio system. The MAX system also allows us to look into the future and explore opportunities for providing redundancy for neighboring counties."

"Clinton County is a small county that will need to rely on their new equipment for some time to come," adds McGrady. "We wanted a dispatch solution that would be able to address the CCDES's needs now and well into the foreseeable future. MAX Dispatch hit the mark."



With 30+ years in the industry and more than 20,000 console positions installed worldwide, Zetron solutions are known for their:

- Seamless integration with 11 major radio manufacturers' systems: Kenwood®, Sprint, Tait, Codan, Cassidian, Auria, Raytheon, Harris, Simoco, EF Johnson and Motorola.
- Unmatched interoperability: Zetron supports more radio interfaces than any other vendor. This includes: P25 CSSI and DFSI, DMR, TETRA, NEXEDGE®, MPT 1327, and Sprint Direct Connect.
- Proven P25 performance, with 1-million logged hours of P25 CSSI-based operation.
- Sprint Direct Connect & DMR support: Zetron is the first vendor to offer Sprint Direct Connect and DMR interfaces.







GA ECC

March 4-6, 2013 | Athens, GA

APCO AUSTRALASIA

March 12-14, 2013 | South Australia, AU

IWCE

March 13-14, 2013 | Las Vegas, NV

ZETRON FACTORY TRAINING

Please contact Zetron before scheduling factory training as dates are subject to change.

MAX Call-Taking

Feb. 25-Mar. 1, 2013 March 25-29, 2013

MAX Dispatch

February 5-8, 2013 March 12-15, 2013

Series 3200

March 4-6, 2013

Series 3300

March 7-8, 2013

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