

ADVANTAGE



Broome County's 28-position Acom System

Delivering Service 24/7

London/Laurel, KY

2 Solutions, 2 Agencies

Swain & Jackson Co., NC



28-position Acom Solution Is a Clean Sweep for Broome County, NY

The Zetron Acom dispatch systems recently installed in the main and backup 9-1-1 centers at Broome County, New York, are delivering features, functionality, and customized interfaces that have greatly improved the agency's ability to serve its community.

In April of 2016, U.S. presidential candidate Bernie Sanders drew a crowd of about 5,000 to a town hall meeting in the city of Binghamton in Broome County, New York. Managing this type of event can pose significant challenges for law-enforcement, public-safety, and emergency services agencies. Not only must these agencies keep rally attendees safe and secure, but they must communicate and coordinate with each other in order to respond effectively in a highly dynamic environment.

Broome County was up to the task. This was in part due to the fact that they had recently installed new Zetron Acom systems in their main and backup 9-1-1 centers.

"With our new equipment, we were able to set up a mobile command post at the arena where the rally was being held, take one of our laptops inside, run it off the local Wi-Fi, and communicate with all the agencies involved," says Broome County 9-1-1 systems administrator, Chuck Rogers. "It was very effective and allowed us to deliver more comprehensive and coordinated oversight and better police, emergency, and security services than we ever could before."

Zetron and Acom had been chosen to equip Broome County because they were able to support this functionality and also meet a host of additional requirements that other vendors' equipment was unable to address. From all accounts, Broome County could not be more pleased with their choice and its outcomes.

Broome County and its emergency services

Broome County is located in south-central New York State, along the border with Pennsylvania. The county's western half is hilly, with wide valleys that are home to Binghamton and its suburbs. It has a population of just over 200 thousand and covers an area of approximately 715 square miles.

Broome County's Office of Emergency Services consists of four divisions: Disaster Preparedness, EMS, Fire Prevention and Control, and Communications. The Communications division oversees Broome County's 9-1-1 public safety answering point (PSAP) and Emergency Dispatch Center as well as its NY-Alert emergency public-notification system.

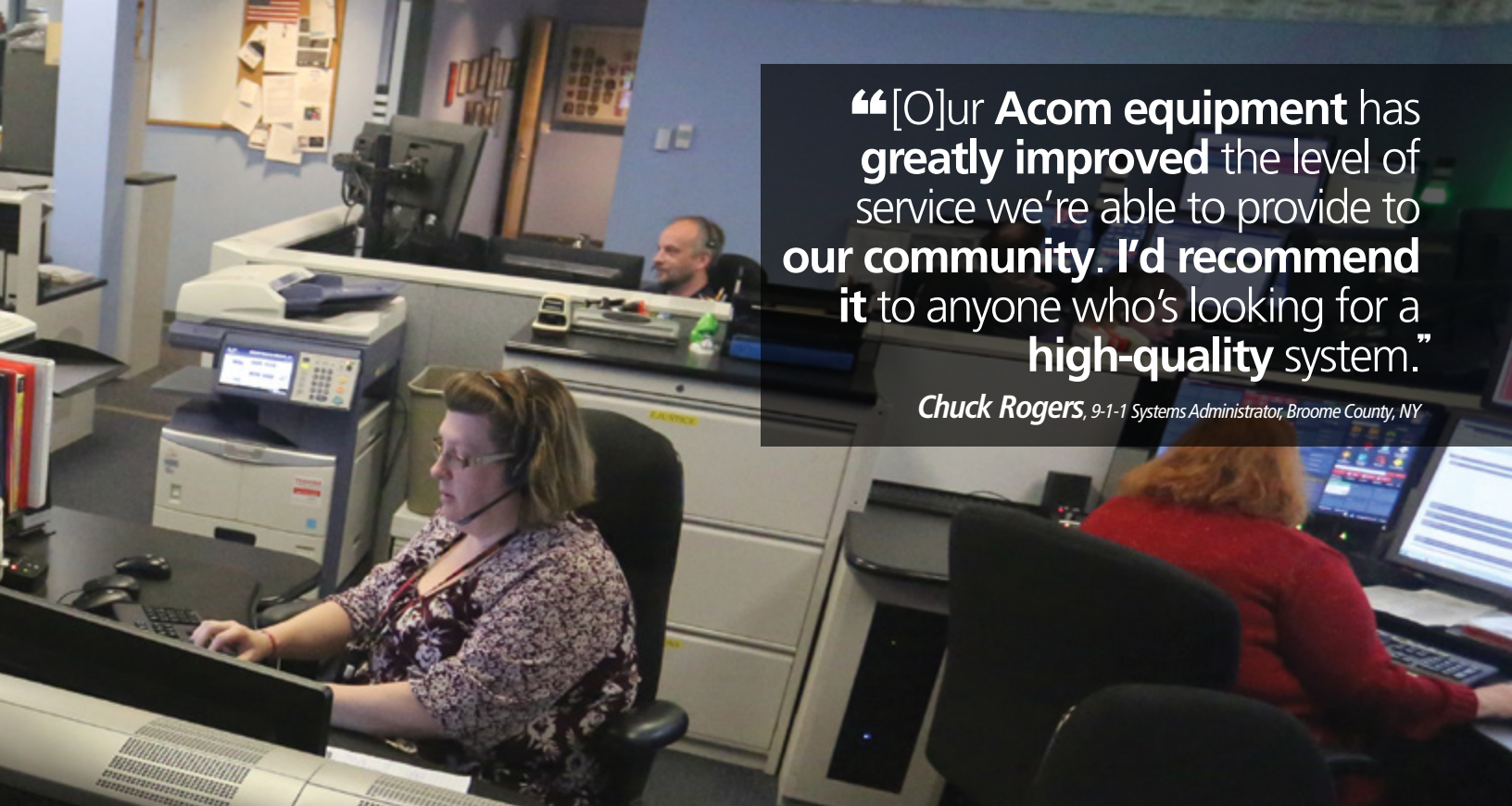
The need for an update

Prior to the recent installation of their new Acom systems, Broome County 9-1-1 had been using a non-Zetron dispatch system in their main center. The backup center was equipped with only computer-aided dispatch (CAD) and phone; they had no backup for radio dispatching. Thus, the recent project's original goal was to add radio dispatch to the backup center. They also wanted a console that would work with their existing two-way radio infrastructure as well the Project 25 (P25) trunked radio system they planned to implement in the near future.

Rogers says that this also became an opportunity to resolve some of their existing system's longstanding issues. "It lacked the broadcast intercom function we need, and it had 'echoing' on some channels, especially when multicasting on several channels," he says. "Plus, it was very difficult and time consuming to make changes to the system, and the fire and EMS paging were cumbersome to use."

Better system, better price

Broome County secured the necessary funding, then did their due diligence, researching radio dispatch console systems. Based on this effort, they requested quotes from Zetron and the provider of their existing system.



“[O]ur Acom equipment has greatly improved the level of service we’re able to provide to our community. I’d recommend it to anyone who’s looking for a high-quality system.”

Chuck Rogers, 9-1-1 Systems Administrator, Broome County, NY

Their provider came back with a quote for a 10-position system for their backup center.

Zetron submitted a proposal that, for the same price, would include a fully redundant Acom system and 17 positions in the main center, and a standalone Acom system and 11 positions in their backup location.

Zetron project engineer, Tad Coyner, who oversaw the systems design and installation for Broome County, says Zetron was able to deliver other important benefits as well. “We were able to give them the improved audio they were looking for,” he says. “That’s something Zetron excels at. Plus, we offered to develop Web-based user interfaces for both their paging and intercom that would use the Acom backroom.”

For all of these reasons, Broome County decided on the Acom system. “Zetron was offering a better system with more features at a better price,” says Rogers. “It was an easy choice.”

‘I never expected it to be so easy’

The installation of both Acom systems began at the Broome County 9-1-1 backup center, with Zetron and Zetron reseller, TuWay Communications, both contributing to the effort.

“We installed the backup consoles and staged the main center equipment at the backup site,” says Coyner. “Then we did a live cutover to the backup site. The night dispatchers worked the main site, and the day shift showed up at the backup site and started dispatching on the new system. We kept the old equipment online for the next week or so. When the time came, we moved the main center equipment to the main site, uninstalled the old system, and installed the new console. We tested it and cut over within a few days.”

Rogers was pleasantly surprised at the ease of the transition. “Nearly all of the dispatchers came to me and told me the training was easy and the system’s functionality was quick and easy to learn and use. I never expected it to be so easy.”

The ‘wow’ factor

Although much of the installation for Broome County was routine, one aspect of it was highly unique.

“The interfaces we created to connect the existing intercom and paging equipment to the new Acom system just wowed them,” says Coyner. “They do a lot of paging for their fire departments, so this was very important to them. They also use their intercom between their main and backup centers and between their different positions. An added bonus for us is that the intercom interface we created for them is now being made available to other customers who need this functionality.”

The best cutover ever, hands down

Rogers has high praise for the project and those who installed it. “I can’t say enough good things about our new Acom systems and the engineers from Zetron and TuWay Communications who helped implement them,” he says. “The timeless hours they put in, never saying ‘no,’ and all the extra custom work. This was, hands down, the best cutover we’ve ever been a part of. And it has made life easier for our dispatchers. You click on the channel you want to talk on, and you’re there. It’s easy to adjust volumes for each channel and easy to set up multicasting and patching. The audio has dramatically improved the dispatchers’ ability to hear subscribers—it’s like night and day. Most important of all, our Acom equipment has improved the level of service we’re able to provide to our community. I’d recommend it to anyone who’s looking for a high-quality system.” ■

MAX Dispatch Delivers Interoperability, Mobile Operations, and 24/7 Service



London Radio Service president, Stewart Walker (left); and London/Laurel County 9-1-1 director, Michael Holt, discuss several options available on the MAX Dispatch system.

The MAX Dispatch system recently installed at the London/Laurel 9-1-1 Center in Laurel County, Kentucky, is delivering the functionality and IP-based features the agency was seeking. It is also being backed by solid technical support from Zetron and local provider, London Radio Service.

As director of the London/Laurel County 9-1-1 Center in Laurel County, Kentucky, Michael Holt had a few bottomline requirements for the new dispatch system he wanted to obtain for his agency. It would have to offer high levels of interoperability, be based on updated technology, and be able to support a mobile command center. It would also require reliable, responsive 24/7 support from a local provider. And it would have to be installed while the center itself was being remodeled—without the least disturbance to their day-to-day operations.

The Zetron MAX Dispatch system installed for London/Laurel County 9-1-1 by London Radio Service has thoroughly met Holt's requirements—and more. It is delivering the interoperability and flexibility he was hoping for. And its IP-based technology has moved the agency into the world of next-generation dispatching.

London/Laurel County 9-1-1

The London/Laurel 9-1-1 public safety answering point (PSAP) serves Laurel County as well as its county seat, the city of London. The center answers up to 45 thousand 9-1-1 calls per year and provides dispatching for the Kentucky State Police, Laurel County Sheriff, London City Police, Laurel County ambulance, London/Laurel Rescue Squad, and 12 fire departments.

Time for new equipment

Recently, it became clear that the PSAP needed to replace its trusted but aging dispatch equipment. The Zetron dispatch system they'd been using for many years was reaching its end of life. Furthermore, recent advancements in dispatch technology were offering new capabilities that the existing equipment simply wasn't designed to support.

“We wanted to move to an IP-based system that would carry us forward and give us updated features and flexibility along with the stability we’d always had with our previous Zetron equipment,” Holt explains. “We wanted to improve our radio communications with organizations that use different manufacturers’ radio systems. And we also wanted to be able to set up a mobile command center at some point and equip it with laptops for dispatching. Whether it’s a drowning, a school shooting, or some other emergency, using laptops over IP would allow us to operate a command post at the scene and improve our ability to respond to an event without interfering with our routine activities at the main center.”

London Radio Service Wins with MAX Dispatch

London/Laurel County 9-1-1 sought and obtained funding for new equipment and a modest facility remodel. They then issued an RFP for a solution that would include a new dispatch system, four dispatch positions, and dispatch furniture to go along with it.

Their radio provider of many years, London Radio Service, won the project with a proposal featuring Zetron’s MAX Dispatch system and Zetron console furniture. It met each of the agency’s requirements, point by point. London Radio Service even developed a “continuous-operations plan” for the project to ensure that the system installation wouldn’t interrupt the center’s usual operations.

“If we’d known sooner what we know now, we’d have purchased [MAX Dispatch] long ago—it has helped us so much.”

Michael Holt, Director, London/Laurel County 9-1-1 Center

Racked, stacked, and staged

London Radio Service president, Stewart Walker, says that once they received the approval to move forward, they ordered the MAX Dispatch system, and the installation was underway.

“The trickiest part of the project was that we had to complete the installation and a live cutover in a very active call center,” he says. “We took out the old furniture early on and put their old system on racks and small furniture so they could keep using it during the install. They were doing their small remodel at the same time, laying new carpet and putting new sound-proof materials on the walls. We were doing other things as well—hanging new weather monitors and putting in the new console furniture.”

“We got the MAX system racked, stacked, staged, and pre-wired to our standards,” Walker continues. “It was all ‘plug-and-play’ by the time we were ready to put it in place. When the time came, we transitioned to the new consoles one at a time, with backup radios available in case we needed them.”

As an extra precaution, other agencies in the area were notified that the cutover was underway. But everything worked exactly as it was supposed to. “Everyone just had to pay attention,” says Walker. “It went off without a hitch.”

MAX Dispatch delivers

Holt says that the new equipment, which went live March of 2015, is delivering amply on the features and services for which it was purchased.

“We have a lot of different radio systems in our area,” he says. “So we’re really pleased with the MAX Dispatch system’s interoperability. It’s able to connect different radio systems—whether they’re P25 [Project 25] or NEXEDGE. We can link them together through our Zetron controller and benefit the whole county. With the IP capability, we can also go mobile and still communicate with all agencies, even if we’re not at the dispatch center.”

Zetron and London Radio Service are also continuing to provide the levels of support the agency requires. “They get right back to us anytime we call,” says Holt. “They understand that we’re a 9-1-1 center, and we have to operate 24/7, without fail. Plus, both Zetron and London Radio Service can access the system remotely to make changes or diagnose issues. It can be anything from changing a display icon to pulling records or checking the health of the system. It might be something we want to do but aren’t sure about. They can remote in and give us the technical assistance we need without even having to make the trip to the center.”

Holt says that the new console furniture has also been a great improvement for their dispatchers because it gives them considerable control over their immediate surroundings. “Each position can be raised or lowered to suit the dispatcher. And each one includes fan and heat controls and the ability to adjust the monitor focal points. Dispatchers who want to be sure to stand up every hour can even set a tone to remind them to do so.”

“In my opinion, MAX Dispatch is delivering huge benefits,” Holt adds. “If we’d known sooner what we know now, we’d have purchased it long ago—it has helped us so much.” ■



MAX Dispatch

Features easy expansion, resource sharing across systems, and remote operations. Also offers easy, cost-effective migration from legacy to emerging technologies.

Features:

- Intelligent, intuitive UI for faster response times.
- End-to-end network redundancy.
- Low-cost expansion, upgrades, and maintenance.
- High interoperability.
- Resource sharing and backup across distributed sites.
- Dispatch over a laptop or tablet as well as the control room.

2 MAX Solutions, 2 Agencies, Mutual Backup

Cades Cove near the Tennessee/North Carolina border, Great Smoky Mountains.

Recent installations of Zetron's MAX Dispatch and Call-Taking systems in the PSAPs at Swain and Jackson counties, North Carolina, have updated both centers' dispatch and 9-1-1 call-taking operations. They are also designed so the PSAPs can provide full backup for each other.

The public safety answering points (PSAPs) at Swain and Jackson counties, North Carolina, have a history of working together. They share personnel and equipment when one or the other needs help responding to an emergency. This tradition of cooperation recently paid off in a big way.

The state of North Carolina passed a law requiring each of its public safety answering points (PSAPs) to develop a backup plan to ensure that all 9-1-1 calls would be answered and processed, even if the primary PSAP goes down. The deadline for having a plan in place is July 2016.

Swain and Jackson counties put their heads together and came up with a mutually beneficial solution that would not only meet the backup requirement cost effectively, but would result in updated equipment for them both.

They each installed Zetron MAX Dispatch and Call-Taking systems that are designed to automatically take over for each other if the need arises. Both PSAPs' systems are identical and can be operated from either location. So if one center becomes unusable, dispatchers can go to the other center and resume operations for their own center without missing a beat. And because the failover is seamless, anyone calling in to either PSAP won't know the difference.

Swain and Jackson counties

Swain and Jackson counties are located in the Great Smoky Mountains that straddle North Carolina and Tennessee. Named for the smoke-like fog that often hangs over the range, the "Great Smokies" are home to approximately 187,000 acres of old-growth forest and one of the most diverse ecosystems in North America. With over 9 million visitors per year, Great Smoky National Park is the most-visited national park in the United States.

PSAP responsibilities

The Swain and Jackson communication centers both answer 9-1-1 calls for their respective counties. Swain County also dispatches for three fire departments, two law-enforcement agencies, one rescue squad, and one Emergency Medical Service (EMS) agency. Jackson County provides dispatching for seven volunteer fire departments, two law-enforcement agencies, two rescue agencies, and for Harris Regional EMS, which maintains three stations. Both PSAPs also support a host of other public-service agencies within the region.

Serendipity intervenes

Over the years, Swain and Jackson counties had discussed the possibility of providing mutual backup for each other—someday.

Then Swain County conceived its own plan and obtained the funding necessary to build and equip a new PSAP. Jackson had not yet initiated such a process, so it appeared that the two counties' timelines for a joint project were not going to align.

But serendipity intervened. Swain's project was delayed. And the state passed the 9-1-1 backup mandate.

This gave the two counties the time and incentive they needed to work together on the project they had thought was only a dream. Instead of each one setting up its own separate backup center, they decided to see whether they could both install new equipment that would allow them to back up both their call-taking and dispatch services.

Making it work

To help determine the viability of the plan, the two agencies enlisted the help of their long-term service and equipment providers—Western Carolina Communications for radio dispatch equipment, and GeoConex for 9-1-1 call-taking.

"Public-safety consulting firm, Mission Critical Partners, helped with the grant-writing process," says Western Carolina Communication V.P. and senior technician, Jeremy Ray. "GeoConex worked on the call-taking side. And we started looking at how to design the dispatch solution so it would be redundant for both counties and allow them to dispatch for either center."



By Anthony Chavez - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=722813>

They all decided that the best approach to meet their current and projected needs was to build new centers for both agencies and equip them with identical, IP-based call-taking and dispatch systems.

MAX Dispatch and Call-Taking fit the bill

Zetron's MAX Dispatch and Call-Taking emerged as the systems that would best support Swain and Jackson counties' plan. Both agencies had been using Zetron dispatch systems, and one had been using a Zetron call-taking system as well. "We were very pleased with how our Zetron systems had worked," says Jackson County Emergency Management Director, Todd Dillard. "Plus when we saw the MAX solutions at a local tradeshow, we were completely impressed with how they looked and operated."

Another benefit of the MAX systems was their IP-based technology. This would make it possible to create identical solutions that would connect seamlessly through fiber-optic cable and provide complete redundancy. "Other vendors could not do that," says Dillard.

"It would also be easier for us to move to these systems because we were already familiar with Zetron equipment," says Swain County Emergency Services Director, David Breedlove. "The ongoing local service and support we'd get from Western Carolina Communications and GeoConex was also critically important to us."

The process begins

The project they all agreed upon involved installing four conventional positions and two laptop positions each of MAX Dispatch and MAX Call-Taking at both PSAPs, for a combined total of 12 positions.

"As soon as Jackson County broke ground for its new center, we started building the tower that was required for the new radios," says Ray. "It was an involved process. The tower had to be verified with the architect. We also had to coordinate closely with the construction company that was building Jackson's new center."

Installing mirrored systems

Western Carolina Communications staged MAX Dispatch at their facility before installing it at their customers' sites. GeoConex did the same with MAX Call-Taking.

“The two PSAPs now have the total redundancy they were seeking. And backup is automatic and seamless.”

Ned Patterson, Account Manager, GeoConex

"We did all of the programming ahead of time," explains Ray. "So when it came time to move the equipment to each site, all we had to do was install and test it."

Ray says that creating two identical systems was a challenge. "The systems had to mirror each other exactly. So we had to keep them both in mind as we were building and programming each one."

Fulfilling the mandate

Although the assumption had been that Swain County would be the first of the two centers to go online, because of weather and other delays, Jackson went live first; Swain followed suit shortly thereafter. The systems have been up and running for about a year, and thus far, everyone involved in the project is happy with their performance.

"The two PSAPs now have the total redundancy they were seeking," says Patterson. "And their backup is automatic and seamless. They also have IP-based equipment and i3-capable call-taking. Although North Carolina doesn't yet have i3, they want to be prepared for it. As far as achieving the highest-level goal of the project, which was to fulfill the state backup requirement, the two PSAPs have more than met it."

"This has been a very successful project," adds Dillard. "We've become the model for other counties looking to do the same thing. It's possible that we'll eventually share backup with other PSAPs in the region—which would increase our redundancy even more." ■

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

PRSRT STD
U.S. Postage
PAID
Kirkland, WA
Permit No. 319



COME SEE US AT THESE UPCOMING TRADE SHOWS:

WASPC

May 24-25, 2016 | Kennewick, WA

MI NENA

May 24-25, 2016 | Lansing, MI

CCW

May 31-June 2, 2016 | Amsterdam

Montana MSPOA

June 14-15, 2016 | Missoula, MT

NENA Annual

June 11-16, 2016 | Indianapolis, IN

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, Inc. All rights reserved. Zetron® and Zetron and Design® are registered trademarks of Zetron, Inc. All other trademarks are the property of their respective owners.

