



ENSURING NO CALL GOES UNANSWERED

ONE SOLUTION SAVES TIME AND MONEY FOR NORTH CENTRAL PENNSYLVANIA COUNTIES

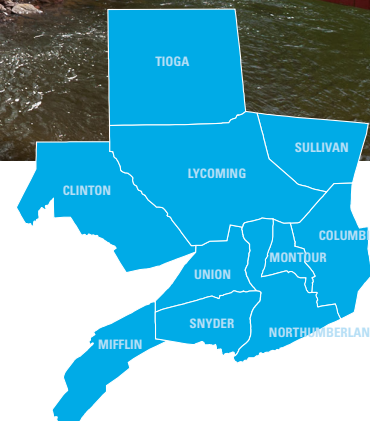
“Columbia County has been involved in the project for three years. We’ve been able to add on and share maintenance costs. We’ve had no issues. All is going well.”

— Jeremy Brown, Director, East Central Emergency Network (ECEN), Columbia County

The counties that make up North Central Pennsylvania are diverse. They vary in size – both land area and population. Yet, they are united by a common topography. All reside within the Appalachian region, and most are situated in the Susquehanna Valley.

These counties are also united by their public agencies and staff who have long worked together across borders to serve the citizens within their communities as well as the region as a whole. This is especially true for the counties’ Public Safety Answering Points (PSAPs) when working to provide the best possible 9-1-1 service.

Yet, despite their efforts to closely work together, the PSAPs acknowledge challenges that kept them from being most efficient and effective – their inability to be truly connected.



CUSTOMER PROFILE

North Central Pennsylvania counties

Motorola Solutions Geo-Diverse
Regional VESTA® 9-1-1 system
and one ESInet serving:

- 10 counties
- 8 PSAPS
- 500,000+ residents



THE PROBLEM

DISPARATE SYSTEMS AND NETWORKS PROHIBIT TRUE CONNECTIVITY AMONG PSAPS

Aside from a desire to work together more seamlessly, the North Central Pennsylvania PSAPs, like all PSAPs, face challenges in serving mobile callers — an issue compounded through use of disparate systems and networks. Call takers couldn't transfer calls to other North Central PSAPs with Automatic Number Identification (ANI) and Automatic Location Information (ALI), presenting potential impacts to response efforts. The PSAPs also faced challenges to 9-1-1 operational integrity since networks and systems were not connected.

“Having MCM Consulting help us coordinate the project made the difference. We could not have done this by ourselves, especially dealing with multiple counties. It removed the burden from the counties so we could handle our normal business. Plus, they bring valuable experience having already done this with other counties. It was seamless for us.”

— Dave Cohick, Director of Emergency Services, Tioga County

THE SOLUTION

ONE SYSTEM AND ONE NETWORK FOR ALL

An initial group of North Central PSAPs — those of Clinton, Lycoming, Sullivan, Tioga and Union counties — took advantage of the fact that their 9-1-1 systems were end of life. They hired MCM Consulting Group, Inc. (MCM) to help conduct a needs assessment and put together a plan to implement a regional system. The Pennsylvania Emergency Management Agency is a proponent of regionalization for 9-1-1 within the state and offers funding for such efforts.

The move to regionalization has proved extremely successful in uniting these PSAPs to realize efficiencies and take advantage of cost savings. Plus, the system has grown to include additional counties since it was implemented five years ago.

THE CALL HANDLING SYSTEM: VESTA 9-1-1

In their research, MCM identified that nearby Columbia County had a geodiverse VESTA 9-1-1 call handling system from Motorola Solutions in place and housed both sides, A and B, at its facility. This created an opportunity for the five counties to partner with Columbia County and join onto its VESTA 9-1-1 system.

Side A remained at Columbia County, and Side B was moved to Lycoming County. The other counties agreed to use the system remotely, still benefiting from the same features and

functionality. As a result, the five counties realized, up front, \$700,000 savings in capital costs since only one 9-1-1 system was necessary to accommodate all six PSAPs.

THE NETWORK: ESINET

The next step was to put in place one network to connect them all. This was the Emergency Services IP Network — or ESInet. The counties entered into a public/private partnership with a fiber provider to develop and maintain a redundant 10GB fiber pipe. This is in addition to microwave paths in areas where fiber was prohibited because of the mountainous terrain. With these measures, the counties now had a redundant ESInet along with a shared 9-1-1 system, mitigating their risks while allowing them to unite for the good of public safety in their region.

In addition to servicing the eight PSAPs on the network today, the ESInet is flexible to extend support beyond emergency call handling systems to the traffic of all critical public safety applications, no matter the vendor. For the North Central counties, these include various computer-aided dispatch (CAD) systems and a shared logging recorder system all PSAPs are using for archived storage.

“Tioga County is using a different phone system that is end of life, so it was perfect timing and a perfect fit for us to join the project. This year we will move to the Motorola Solutions’ VESTA 9-1-1 system as part of the regional project. It gives us cost savings and immediate backup so other centers can act as an answering point for us when we need it.”

— Dave Cohick,
Director of Emergency Services,
Tioga County

LESSONS LEARNED

Jonathan Hansen, Project Manager and Staff Supervisor for MCM Consulting Group, Inc. shares the following lessons his organization and the counties learned in their journey to be truly connected.

- 1. Make sure everyone is on board.** This not only refers to the individual PSAPs but to each county's board of commissioners and other relevant agencies, too. MCM developed an intergovernmental agreement that lays out how the system operates. This helped ensure there were no political battles.
- 2. Appoint one county as fiduciary for the region.** Jonathan explains that, in the case of North Central Pennsylvania counties, a county volunteered to serve as a fiduciary for the region, and it was written into the intergovernmental agreement. That county enters into all the contracts for the region and takes care of paying invoices. He says the role is "an incredible value" and helps ensure fiscal responsibility and consistency.
- 3. Plan well.** Jonathan recommends the PSAPs and supporting partners put in "lots of planning on the front end" to avoid any surprises or major problems down the road. This is especially true in selecting the right vendor. He said, "Motorola Solutions was very supportive of the projects. They were great to work with."
- 4. Be aware of roadblocks.** In regards to the ESInet, the counties met challenges with a state agency when the fiber was mapped to go through a state park. He advises to plan in advance where the fiber is going and ensure there will be no regulatory or other issues that might arise to avoid time-consuming roadblocks.

VESTA 9-1-1 REGIONAL SYSTEM

At implementation:

- The five PSAPs realized a \$700,000 savings upfront in capital costs

Since implementation:

- Three more counties have joined - Snyder, Mifflin and Northumberland

From the outset:

- No heavy lifting - no additional capacity necessary since VESTA 9-1-1 supports up to 250 positions

"We've always had good relationships between us, but this project solidifies our working together for our benefit and that of the citizens we serve. Now, as other projects come up, we have the opportunity to bring them to the group and that's something we didn't have before."

— Jeremy Brown, Director, East Central Emergency Network (ECEN), Columbia County



BENEFITS

LESS COMPLEXITY.

When multiple PSAPs use one shared switch, the ALI trunks are eliminated, except for the host counties, making for a simpler configuration.

REDUCED COSTS.

Less trunks means less mileage charges by the telephone company. Plus, reduced hardware also equates to less maintenance and associated costs.

ENHANCED OPERATIONAL INTEGRITY.

Counties can automatically and seamlessly failover to one another in the event of an emergency, such as power loss at a PSAP. Counties can also login and take calls for another PSAP in the case of an emergency or evacuation of the PSAP.

INCREASED FLEXIBILITY.

With the geodiverse VESTA 9-1-1 system, calls can be redirected to another PSAP when call volumes are high, such as in a storm or for a large-scale event. This allows neighboring PSAPs to share the workload.

SHARED RESOURCES.

Aside from sharing the network and the system in general, individual PSAPs have access to optional functionality they wouldn't have been able to afford on their own. One example is the Automated Abandoned Callback feature of VESTA 9-1-1, which automatically returns abandoned 9-1-1 calls, reducing the load for call takers and allowing them to assist callers with true emergencies.

“As we implement more aspects of NG9-1-1, like data, video and images, we’re a united front. Each county isn’t trying to do their own thing. We have one solution, not multiple. We’re prepared to take on what’s next.”

— Dave Cohick,
Director of Emergency Services,
Tioga County

For more information, please visit us on the web at: www.motorolasolutions.com



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