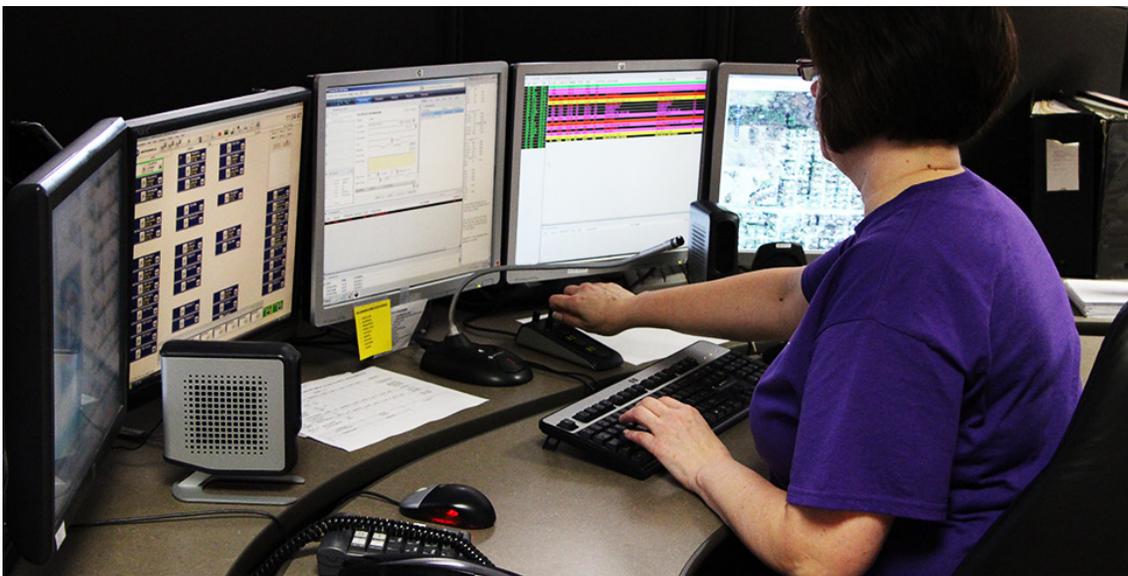




MAKING SAGINAW COUNTY SAFER WITH DIGITAL COMMUNICATIONS

RELIABLE, REAL-TIME POLICE, FIRE AND EMT COMMUNICATIONS WITH STATEWIDE INTEROPERABILITY



CUSTOMER PROFILE

Organization

- Saginaw County Public Safety

Application

- Digital inter- and intra-agency communications and dispatch

Motorola Solution

- Motorola 800 MHz digital radio system, digital radios, MCC 7500 dispatch console, PremierOne™ CAD system

Solution Features

- Clear, reliable digital voice and data communications
- Interoperable statewide emergency communications
- Centralized single screen dispatch system
- Advanced CAD service platform

SITUATION

SAGINAW COUNTY WANTED TO IMPROVE ITS PREPAREDNESS AND RESPONSE TIMES BY UPGRADING ITS EMERGENCY COMMUNICATIONS SYSTEM.

To fulfill its commitment to providing its public safety professionals with the most advanced emergency communications systems, Saginaw County wanted to upgrade its older analog-based technology to a digital system. Its goals were to increase community, resident and first responder safety by providing faster, more interoperable, more coordinated response to inter- and intra-jurisdictional situations ranging from crime incidents to weather emergencies.

SOLUTION

WORKING WITH MOTOROLA, SAGINAW COUNTY PLANNED AND DEPLOYED NEW DIGITAL VOICE AND DATA COMMUNICATIONS AND A UNIFIED CAD SYSTEM.

In 2008, in partnership with Motorola, the county upgraded from analog to an advanced digital emergency communications system. The digital system included a Motorola 800 MHz digital radio system, 1,300 portable radios, an MCC7500 IP dispatch console, the PremierOne™ computer-aided dispatch (CAD) service platform and two additional towers for expanded coverage.

RESULT

SAGINAW COUNTY PUBLIC SAFETY AGENCIES NOW SAFEGUARD RESIDENTS WITH INSTANT COUNTYWIDE VOICE AND DATA COMMUNICATIONS, AS WELL AS RELIABLE INTEROPERABLE COMMUNICATIONS WITH OTHER JURISDICTIONS.

The upgrade from analog to digital communications has resulted in improved preparedness and faster response to emergency situations of all kinds, increasing the safety of residents and the protection of property throughout the county. Its digital system also enabled Saginaw County to communicate and coordinate with neighboring jurisdictions, and become part of the state of Michigan's digital platform, allowing real-time communication with various state agencies as well being able to take advantage of the state's network maintenance and support services.

INTEROPERABLE DIGITAL COMMUNICATIONS ACHIEVED

With just over 200,000 residents, Saginaw County is situated near Saginaw Bay on the thumb of the "catcher's mitt" that forms the shape of Michigan. Over the years, the city and county have been undergoing a major transition period. As the years turned into decades, Saginaw County public safety professionals have been forced to deal with dangerous and difficult challenges that ranged from growing crime rates to an increasing number of weather-related emergencies.

For police, fire and EMS departments, these issues were made even more challenging due to its older analog-based communications system that too often provided slow, inconsistent performance, audio quality issues, dead zones and short range.

THE NEED TO UPGRADE

The limitations these analog issues placed on first responders were serious. When police officers needed to pick up and transport prisoners from another county, for example, they were traveling beyond the reach of their

mobile radios. When a three- or four-alarm fire was raging in an industrial warehouse or residential apartment building, fire fighters lacked the real-time communications to quickly call neighboring jurisdictions for assistance. If a suspect in an armed robbery led law enforcement on a chase that crisscrossed city and county lines, lack of interoperable communications made jurisdictional coordination and responsibility for his capture confusing and inefficient.

DEAD ZONES AND GARBLED VOICES

When Don Pussehl, Jr., Saginaw Township's Chief of Police, was a young police officer in the department, he experienced those challenges first hand. He remembers having just four radio channels, and transmissions using the old analog system were often garbled and impossible to understand. There were also many "dead zones," such as in hospitals, malls and rural areas. "If an officer had to leave the county to participate in an investigation," Pussehl recalls, "he'd get maybe 30 to 40 miles outside Saginaw County and lose all radio communication."

DISPATCH COMMUNICATIONS ISSUES

In Saginaw County, a Central Dispatch Center has responsibility for fielding all emergency calls and dispatching public safety personnel for every emergency in the county. Law enforcement, fire, emergency medical services and the road commission each play an integral part in this fluid call and response process that ensures citizen safety.

"Before the mid-1990s, we didn't have unified radio dispatch," says Tom McIntyre, executive director of Saginaw County Central Dispatch. "People went out and bought their own radios and used their own frequencies." Today, things have changed significantly. The system currently handles about 370,000 calls each year with only 30 dispatchers, which means they have to be highly productive in very stressful situations. Adding to the stress was inadequate radio coverage and poor audio quality when first responders and dispatchers tried to communicate during emergencies. With clear and instant communications crucial in all types of emergencies, Saginaw County realized they needed to switch to a digital communications system.

"If an officer had to leave the county to participate in an investigation, he'd get maybe 30 to 40 miles outside Saginaw County and lose all radio communication."

— Don Pussehl, Jr., Chief of Police, Saginaw Township

THE DIGITAL DIFFERENCE

The county's move into the digital age began in 2008 with the upgrade to a Motorola digital emergency communications system. The new digital technology included a Motorola 800 MHz digital radio system, 1,300 portable radios, the MCC7500 IP digital dispatch console and one of the first installations of the Motorola PremierOne™ CAD service platform. At the same time, the county expanded its radio coverage with the addition of two additional towers.

"With digital technology, I now have a portable radio that can communicate anywhere in the state of Michigan," explains Pussehl. "I can switch to thousands of talk groups. I can even communicate with the state police if I come across something that requires my assistance." The public safety department is very pleased with the system's performance. Pussehl says, "The system doesn't go down. We don't have dropped calls. We have clear communication, the ability for wider radio coverage and total reliability." He adds that they've exceeded the life expectancy of their equipment by years, saving taxpayer money.

STATEWIDE INTEROPERABILITY

A year after deploying its digital emergency technology, Saginaw County migrated the system to the state of Michigan's digital platform. This permits communications among different agencies throughout the state and offers the benefit of maintenance and support services delivered by the state. The Motorola/state collaboration is a winning combination that increases public safety by delivering interoperability, emergency coordination and communication among local, regional and statewide agencies.

ASSURING FIRE FIGHTING RELIABILITY

Saginaw County's digital emergency communication system is as productive for fire fighters and emergency medical personnel as it is for police officers. Bridgeport Township Fire Chief, Pat Nelson, who oversees personnel responding to 1,000 incidents per year, expresses appreciation for the system's reliability. A former executive in information systems management, Nelson also manages the township's information systems.

To relieve some initial concerns about the system's capabilities, Motorola sent an engineer to ride along with law enforcement and fire representatives. "We checked every square mile in the county," Nelson says. "They went to all the buildings and areas where we knew there were problems with dead zones. The coverage was just outstanding."

"(Motorola helped us check) every square mile in the county. They went to all the buildings and areas where we knew there were problems with dead zones. The coverage was just outstanding."

- Pat Nelson
Fire Chief
Bridgeport Township

"Before the mid-1990s, we didn't have unified radio dispatch. People went out and bought their own radios and used their own frequencies.

- Tom McIntyre
Executive Director, Central Dispatch Center



SAGINAW COUNTY
COMMUNICATIONS CENTER

CASE STUDY SAGINAW COUNTY

BEYOND FIRE FIGHTING

Of course, fire personnel do much more than fight fires. They're often called out to other types of emergencies, such as car crashes, which can require the intervention of law enforcement, fire and emergency medical services (EMS) working as a team. As situations evolve, the digital communications system provides the teams with the ability to seamlessly interoperate, collaborate and coordinate with one another.

"Very quickly, within a minute or two, we can all update each other on a common channel," Nelson explains. "If I need to talk to law enforcement and EMS and they're too busy to get on our channel, I can ask central dispatch to patch our three channels together with the click of a mouse. That guarantees communications."

With digital technology, the county's CAD system is more robust than ever. This includes the ability to use pre-loaded box alarm cards, for example, for incidents in large buildings. When triggered remotely by dispatch, the cards automatically generate a request for mutual aid and support from neighboring municipalities. "This enhances our response times and our ability to better protect lives and property," Nelson says.

PROGRESSIVE INTEROPERABILITY

Saginaw was one of the first counties in the country to implement Motorola's PremierOne CAD platform (see sidebar), adding capabilities that provide dispatch with a single, real-time operational view of incidents.

The continually evolving digital system is symbolic of the progressive attitude that is the hallmark of Saginaw County's entire emergency response network. Police and fire chief subcommittees meet weekly, looking at new technologies that could benefit public safety personnel, and cross-pollinate new ideas between agencies. Saginaw County takes interoperability far beyond simply sharing radio channels.

PLANNING FOR THE FUTURE

The chiefs and directors in Saginaw County tasked with planning for tomorrow's technology know that text-to-911, integrated social media and the ability to communicate nationally are on the horizon.

"We have a cooperative spirit in every discipline here," says Nelson. "We understand how new technologies will benefit our organizations and how to get them implemented." Today, at the recommendation of the subcommittees, Saginaw County is currently budgeting for another system upgrade in 2017, which will include the purchase of Motorola APS P25 digital radios.

"We work well together," concludes Pussehl. "I think that helps us as we look to new technology, especially with Motorola as a partner. We're able to implement new technology maybe other areas of the country have not."

To learn more about migrating to a digital platform, contact your Motorola representative or visit www.motorolasolutions.com/MAP