



CHARDON LOCAL SCHOOLS CONNECTS DIRECTLY TO FIRST RESPONDERS WITH AN INSTANT LINE OF COMMUNICATION



MOTOTRBO™ RADIOS AND SCHOOLSAFE™ OPEN THE CHANNEL TO EXCEPTIONAL INTEROPERABILITY

K-12 school districts around the country are seeking next generation communication solutions to help keep students and staff safe, especially as violence and crime in schools escalate.¹ According to Dr. Michael Hanlon, superintendent of Chardon Local Schools, "Key to safety planning is improving the flow of information between first responders and on-site school personnel in an emergency."

Located thirty miles east of Cleveland, Ohio, Chardon Local Schools serves over 3,000 students in three jurisdictions and is home to a high school, middle school, four elementary schools and since March 2014, a significantly improved communications system.

"If we wanted to communicate among schools or across the district, we had to use landline or cell phones and they were not reliable," explains Dr. Hanlon. "If an emergency occurred, time was lost as we tried to make connections."

Chardon Local Schools discovered an innovative solution that can be adapted for any district: MOTOTRBO digital two-way radios with the SchoolSAFE Network for selective and direct access to first responders and Motorola APX™ 4500s with O2 control heads and a large emergency button. From the outset, the district has experienced greater efficiency in everyday operations and instant interoperability between staff and public safety agencies in emergency situations.

CUSTOMER PROFILE

Chardon Local Schools

- Over 3,000 students, 325 teachers and staff, 6 schools

Motorola Solution

- MOTOTRBO XPR™ 3500 Portable Radios
- SchoolSAFE Network
- APX 4500 Base Station with O2 Control Heads
- XTL™ 1500 Mobile Radios
- MOTOTRBO XPR 8400 Repeaters
- IMPRES™ Remote Speaker Microphones

Features

- Instant, accurate, reliable communications district-wide
- Connects staff, buses and first responders in real time
- Seamless on-scene interoperability and rapid response
- Greater efficiency in day-to-day school operations
- Sustainable safety training and exercise program



THE CHALLENGE

IMPROVE THE SPEED AND ACCURACY OF EMERGENCY COMMUNICATIONS

"We relied on walkie-talkie style radios that were incompatible with each other from school to school. There was no connectivity or bridging capability among buildings," says Dr. Michael Hanlon. The only way to connect schools across the district was by phone and to connect law enforcement, fire and EMS was by calling 9-1-1.

"In an emergency, we had to relay everything through the voice of one caller to public safety," he explains. "It was inefficient at best and inaccurate at worst because of incomplete information and first responders not knowing what was going on. We knew cell phone networks become overwhelmed in minutes. They simply can't handle the volume of calls."

EXPECT CLEAR, RELIABLE COVERAGE TO BE AN EVERYDAY CERTAINTY

According to Samantha Spaulding, Vice President of Communications Service, the local Motorola channel partner, not only was there a mix of radios from multiple vendors, but several schools did not have licensed frequencies. "Staff weren't able to talk from building to bus garage, literally right behind the school. They could not be assured their different radios would work together," she says.

Some campuses were far apart, beyond the range of a repeater, making inter-school radio communication impossible. The lack of direct connectivity between the schools and bus fleet was also problematic. Although buses operated on the countywide P25 800 MHz MARCS radio system, developed by Motorola, to link to public safety, school personnel could not talk with drivers unless they had a P25 800 MHz radio.

THE SOLUTION

MOTOTRBO AND SCHOOLSAFE MAKE INTEROPERABILITY A REALITY

Working together with Motorola, SchoolSAFE, public safety agencies and the local Motorola channel partner, Chardon Local Schools implemented a groundbreaking solution across the district. Approximately 250 MOTOTRBO XPR 3500 portable radios were distributed to teachers, administrators and safety teams to help ensure optimal coverage. Radios are licensed to each school with a frequency specific to that school.

Along with hardware is the SchoolSAFE Network which enables interoperable communications between each school's MOTOTRBO radios and public safety's Motorola ASTRO® P25 radios. The district can bridge its district-wide radio system to each school when the need arises. 9-1-1 dispatchers control turning the bridge on when a call comes in from a school.



Once the SchoolSAFE public safety bridge is activated, school personnel use their MOTOTRBO radios to talk directly with 9-1-1 dispatchers and first responders heading to the scene. Instead of information passing through multiple parties or being incomplete, everyone is on the same channel as an incident unfolds.

"We had a middle school student who had a seizure during class, with no prior history," recalls Dr. Hanlon. "Because our teacher was trained on the new system, she talked to EMTs before they even arrived, and the situation was handled successfully."

"Motorola radios with the SchoolSAFE Network improves our security and our ability to respond quickly to situations. Now we can communicate faster, effectively and directly to schools, buses and public safety. We know it will keep students and staff safer."

Dr. Michael Hanlon, Superintendent, Chardon Local Schools



PUBLIC SAFETY AND STUDENT SAFETY ARE ON THE SAME WAVELENGTH

At the heart of the system is an incident control team (ICT) at each school. The ICT typically consists of non-classroom staff, such as a principal, assistant principal, custodians and secretaries. The team acts as the first line of response when an incident occurs on campus.

The second line is the MOTOTRBO radios deployed throughout school buildings to create a perimeter. "If there is an incident that requires handling beyond the ICT," explains Dr. Hanlon, "all a staff member has to do is tell teachers monitoring a channel to switch to the priority channel and we have instant communication throughout the building."

Ohio's Multi Agency Radio Communications System (MARCS) partnered with the State to provide a grant for MARCS In-School Radios (MISR). One MISR is available to every school building, public and private, in Ohio. This allows for an immediate alert from the school district to their Public Safety Answering Point (PSAP).

APX 02 CONTROL HEAD OPENS ANOTHER CHANNEL FOR RESPONSE

A Motorola APX 4500 base station with O2 control head outfitted with a large, orange emergency button and paddle microphones delivers another layer of safety. The control heads were provided by a grant from the State of Ohio through a school security funding bill put in place by the governor.

The control head is what Sheriff Dan McClelland of Geauga County likens to "a fire alarm for law enforcement." His office and the school district decided it will only be used in the event of an active shooter. "When that button is pushed, the cavalry comes in," he says. "Even if school personnel can't talk to us, we can hear them."

REAL-LIFE SCENARIOS PREPARE EVERYONE TO RESPOND EFFECTIVELY

Training is integral to the success of the solution, keeping it fresh for the district. First, principals and staff learn radio "operability" so they become effective communicators and can take control as incident command. Next, through training with local public safety agencies, they focus on "interoperability" so they interact effectively with first responders when the bridge is on.

"Each month our schools practice active drills so we are prepared," says Dr. Hanlon. "We play out actual scenarios with officers to see how they respond and how information is relayed, from an injured student on campus to an accident on the bus. We get real-world experience which is far more beneficial than a classroom exercise."

Once schools meet certain benchmarks, they are SchoolSAFE certified. "It's another tangible benefit we bring to the community," explains Dr. Hanlon. "We can say all our schools have this level of certification and demonstrate our commitment to ensuring students and staff remain safe."

"When an incident occurs, we know what everyone is doing and what is expected."

"Motorola radios with the SchoolSAFE Network enable everyone to be on the same page."

Chief
Scott Niehus,
Chardon Police
Department



"Without radio communication, you can't coordinate. Our ability to get up-to-the second information and provide that to first responders is critical. Now school staff can be anywhere and have direct contact with a first responder and other staff."

Dan McClelland, Geauga County Sheriff



THE BENEFITS

INSTANT, ACCURATE, TWO-WAY FLOW OF INFORMATION

Today, staff in Chardon Local Schools, on buses and in the field are linked to public safety in real time with interoperability that never existed before. "The system delivers a two-way flow of information that is critical during an incident," says Chief Scott Niehus of the Chardon Police Department. "It gives us the ability to communicate what is happening on our end. SchoolSAFE gives the incident commander the ability to get accurate, timely information back to teachers, staff and bus drivers, who may be sequestered, as to what is occurring."

"Whether it's a heart attack happening or an intruder moving across campus, getting information as the situation unfolds is invaluable," adds Sheriff McClelland. The SchoolSAFE bridge is only turned on and off when needed, leaving the radio frequencies available for daily operations.

MORE EFFICIENT OPERATIONS AND MORE EMPOWERED STAFF

Day-to-day communications have increased exponentially with MOTOTRBO radios. "We actively use them in the administration and operation of the building, from inter-staff communications, alerting custodians to issues, moving supplies, managing students and monitoring recess times," says Dr. Hanlon.

"We can communicate immediately with transportation to make sure accurate information gets directly to the bus drivers on how to handle a scenario. It is much more efficient than an assistant principal standing outside trying to talk to each driver individually," he adds. "Our staff also develops a level of familiarity with MOTOTRBO radios so when a crisis arises, they are comfortable using the technology effectively."

FLEXIBLE SYSTEM ADAPTS TO SCHOOLS TO HARDEN SAFETY

"The system is very flexible and can be customized to schools," says Samantha Spaulding, the local Motorola channel partner. "It is up to the district and first responders how they want to use the radios to improve responsiveness and safety."

"This system is all about interoperability," emphasizes Sheriff McClelland. "When we have an incident at a school, the staff and administrators are part of our emergency response. Being able to communicate with them is critical. If you can't communicate, you can't coordinate."

"The safety and security of staff and students is always our top priority," says Dr. Hanlon. "We now have consistent, reliable, accurate, effective information which is a key ingredient in ensuring their safety every day. This is the foundation upon which any school district safety plan is built."

"Motorola radios with the SchoolSAFE Network give us an instant line of communication we can rely on. Even in a large-scale crisis, we can maintain a flow of information when other forms of communication are going down."

Dr. Michael Hanlon,
Superintendent,
Chardon Local
Schools

To connect your schools directly to first responders, visit motorolasolutions.com/education or contact your local Motorola representative.

1. Report: School Crime and Violence Rise, U.S. News and World Report, June 10, 2014