SOUTH-WESTERN CITY SCHOOL DISTRICT INSTALLS INTEGRATED RADIO SYSTEM FOR SEAMLESS, DISTRICT-WIDE COMMUNICATION

South-Western City School District relies on an integrated Motorola digital two-way radio solution for efficient day-to-day and emergency communication among schools and public safety officials.

SITUATION

Spanning 119 square miles and with total enrollment of approximately 20,000 students, Ohio's South-Western City School District is the second largest in Franklin County, and the sixth largest in the State of Ohio.

With the FCC's January 2013 narrowbanding requirement looming, the District decided to streamline its radio bandwidth use. To comply with Homeland Security requirements, the District would have to facilitate a whole new level of communication between the four law enforcement agencies and five fire departments serving its jurisdiction.

It all started with an FCC narrowbanding mandate. By 2013, the District radio system must double its efficiency, switching from 25 kHz technology to 12.5 kHz levels. This required the District to come up with a budget for the switch where none had existed.

As the District began investigating its options, it realized its communication system was in need of a critical upgrade. Some facilities had two-way radios. Others didn't. Buildings were on an UHF system. Buses were on a VHF system. And some buildings used low-cost, low-reliability radios bought at the local store. At certain times and places, the signal didn't always come through clearly. But here's what did: the School District needed wholesale changes to comply with Homeland Security regulations, secure its communication system, and ensure the safety of its students.

CUSTOMER
South-Western City School District

INDUSTRY
- Education

MOTOROLA SOLUTION
- MOTOTRBO™ XPR™ 6550 digital portable two-way radios for administrator-level, district-wide use
- MOTOTRBO™ XPR™ 4350 digital mobile two-way radios with built-in GPS and direct channel to police department for school buses
- MOTOTRBO™ XPR™ 4550 digital mobile two-way radios for bus equipment racks
- MOTOTRBO™ XPR™ 8300 repeaters
- MOTOTRBO™ Capacity Plus single-site trunking system with enhanced GPS
- CP200•XLS analog portable two-way radios for intra-building teacher and custodian use

SOLUTION FEATURES
- Seamless, customizable, district-wide communication between schools, district offices and public safety officials
- Bus mobile radio telemetry features for data record and recall
- Bus GPS and direct channel to public safety functionality

20,000 STUDENTS
119 SQUARE MILES
31 SCHOOLS
1 SEAMLESS NETWORK

SOLUTION

A comprehensive, customized and cost-effective radio communication system.

Since the District sought a solution integrated with first-responding agencies, it first turned to the Grove City Police Department, which had a relationship with a local channel partner, B&C Communications. Led by District Project Director of Readiness and Emergency Management in Schools, Gary L. Sigrist, Jr., the District turned to B&C with a long list of requirements, which included the challenge of communicating directly with one of its police departments.

"We met with B&C Communications, and we talked about a consistent communication piece across the District. We wanted to be able to communicate through different departments, buildings, etc. When we explained that we wanted to start from scratch and buy new equipment to communicate across the District, we started looking at the CP200•XLS radios for building use and MOTOTRBO for District-wide use. We talked about communicating with the Grove City Police and about GPS."

"I knew what we needed in terms of Homeland Security and communicating with first responders. To be honest, we didn't know what was out there. When I conveyed our ultimate goal and needs, that's when they suggested the MOTOTRBO and CP200•XLS to meet our long-term needs." The rest was history.

The installation occurred in two phases. First, in Spring 2011, each District building received a CP200•XLS radio. These analog radios were meant for day-to-day use within the building. Because all the radios were the same model, they could be used interchangeably in buildings throughout the District. This was especially helpful to facilitate easy communication when staff from different schools needed to bring their radios to a multi-school event.

Second, in Summer 2011, the District began programming and installing MOTOTRBO digital mobile radios in buses. In August 2011, the District equipped its administrators with MOTOTRBO portable radios capable of communicating with anyone in the District, anywhere in the District – whether they were using a CP200•XLS analog radio or a MOTOTRBO digital radio. Sigrist characterized the entire installation and transition process as a "pretty smooth rollout."

RESULTS

In August 2011, the District introduced a newly integrated radio system, compliant with the 2013 FCC narrowbanding mandate and with Homeland Security requirements. It includes the right mix of radios for their needs. Now, the District is utilizing an UHF channel, facilitating consistent communication throughout the entire District. Each District building is equipped with a CP200•XLS analog portable radio. School buses are equipped with MOTOTRBO digital mobile radios, which include GPS and a direct channel to the Police Department. Administrators use MOTOTRBO radios in analog or digital mode to easily communicate between buildings and departments, as well as with public safety officials. This integrated radio solution will greatly enhance the efficiency and functionality of District-wide communications.

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Gary L. Sigrist, Jr., District Project Director of Readiness and Emergency Management in Schools

INTEGRATED COMMUNICATION, DISTRICT-WIDE

The District now has an integrated communication system that is Homeland Security compliant. Every administrator's MOTOTRBO digital radio is programmed so that it can operate with any of the CP200•XLS analog portable, building-specific radios in the district. Administrators can also switch their radios to operate on the district-wide MOTOTRBO Capacity Plus digital system. This includes a hidden, listen-only channel, through which building principals and administrators can be notified in the event of an emergency.

Sigrist remembers a perfect example of this district-wide functionality: "Yesterday, we had an incident where a building was without power. They were told that it was going to be out for at least 3 hours. We had property services, transportation, the superintendent's office, and the public information office all on one channel. I was just listening, because they don't need me to make those kinds of decisions. What you could hear was that we had people literally as far apart in our district as they could possibly be, but because we were all on the same channel, everyone heard the same discussion. That's the way it was supposed to work."

PRIVATE CALL IS THE RIGHT CALL

One vital MOTOTRBO function is "private call." Sigrist recounts a recent incident: "I was at a building and I noticed there was a news reporter sitting up on the school property, which was not allowed. I was able to program my radio so it was a clone of the building radio. Because I was outside the building, I was able to contact the principal on his channel, as I didn't want everyone on the staff to hear what was going on outside. I said, 'Private call my radio.' Then he was able to private call my radio, so he and I were the only two that could hear the conversation about what was happening outside."

TELEMETRY FEATURES CREATE INSTANT RECORD

Each District bus is equipped with a suite of telemetry features, tracking speeds, when doors are open, whether lights are flashing and more. When drivers press the "panic button," the radio automatically transfers to the police department for 30 seconds. Law enforcement officials can then speak directly to the driver and also listen to what's going on in the bus, even if the driver can't talk. Because each mobile radio is assigned to a given bus, authorities know which bus it is when they key their microphone.

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Gary L. Sigrist, Jr., District Project Director of Readiness and Emergency Management in Schools

BUS GPS – A WHOLE NEW ROUTE TO ACCOUNTABILITY

As the District uses Motorola's radio solutions, it continues to find valuable applications. Sigrist describes ways in which the District has found new uses for the GPS on bus mobile radios, "If someone were to call to tell us that a bus driver was driving too fast in a residential or construction area, we now have the ability to go back and check the records to verify the bus' speed at any given time or location."

WHY MOTOROLA

When it came time to choose radio products, Motorola met the District's complex communication and compliance needs. Sigrist explained it as follows, "When the U.S. Department of Education asked me why we went with B&C and chose Motorola, I told them that as part of the REMS grants, we stress building strong relationships with our first responders. This system provides us with seamless integration between the Grove City Police Department and the School District."

WHAT'S NEXT

Expanding functionality will be a lot easier because of the District's investment in an integrated, multi-tiered, custom communications solution. For example – in the future, the District may wish to consider whether it will be advantageous to install additional antennae on its radio tower to enable data transfers between radios. By doing so, the District could be even more resilient in its response to future security and communication challenges.

Learn how your schools can benefit from MOTOTRBO
www. motorolasolutions.com/MOTOTRBO
1-800-367-2346

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