



# TOWNSHIP HIGH SCHOOL DISTRICT 214: INSTANT COORDINATION AND COLLABORATION FOR SAFER, MORE PRODUCTIVE LEARNING

## MOTOTRBO™ RADIOS AND WAVE™ SUPPORT OPERATIONS AND ENHANCE SCHOOL SAFETY

High School District 214, located in Arlington Heights, Illinois, is the second largest high school district in the state. The district includes six high schools and four specialized programs, with over 12,000 students, serving residents across a 62-square mile area.

School District 214 wanted to create an integrated and seamless communications infrastructure to enhance school safety, support district-wide communications for daily operations, and enable more productive learning.

### CUSTOMER PROFILE

#### Township High School District 214 (Arlington Heights, Illinois)

- 2nd largest high school district in Illinois
- 7 school buildings
- 12,100 students
- Encompasses 62-square miles

### INDUSTRY

K-12 Education

### SOLUTIONS

- WAVE™
- 800 MOTOTRBO™ XPR 6550 Digital Two-way radios
- 85 MOTOTRBO XPR 4550 Digital mobile radios
- MOTOTRBO Linked Capacity Plus
- 22 MOTOTRBO XPR 8400 LCP Repeaters
- NeoConneX GPS Fleet Manager
- Avtec Console and Logger

### BENEFITS

- Integrated communication solution supports instant connectivity district-wide
- Improves emergency and wide area coverage and school safety.
- Enhances coordination of activity buses and vans with GPS fleet tracking application
- Extends coverage and reach with push-to-talk on any device, anywhere



**MOTOROLA SOLUTIONS**

## CHALLENGES

### Disparate Equipment Across Schools

Over the years, School District 214 had left radio fleet purchasing decisions up to individual schools, which resulted in different radio systems — from different vendors and with different licensing structures — being used across the district's seven high schools. In addition, many of the radios were older analog models, with reliability, voice clarity and coverage challenges. Those issues, combined with FCC regulations requiring radio systems to shift from wideband to narrowband frequencies, drove the district to seek a new communications partner and transition to all-digital technology.

### Extend Reach Well Beyond Classrooms

The district also required wide area coverage that would enable school personnel to be instantly connected, whether in the classroom, on the football field, in the gymnasium or in any other location on campus. In addition to effectively communicating with district personnel in various locations, those same personnel were using a variety of different devices, such as smartphones, laptops and tablets. Eliminating communication delays caused by these different devices was another goal for the new solution.

The district also wanted the ability to easily create and add new talkgroups, allowing staff to respond rapidly and work efficiently with the right colleagues at the right time — giving productivity a major boost.

### Support for Safety Initiatives

Improving student safety was another major priority for the district. During a critical situation, if a school's radio was out of range, employees would turn to their individual cell phones. However, cell phone towers often get overloaded during emergency events, making that a poor alternative. Having instant reliable communication throughout the entire School District 214 coverage area—and the ability to connect directly to first responders, if needed—was imperative to enhance security.

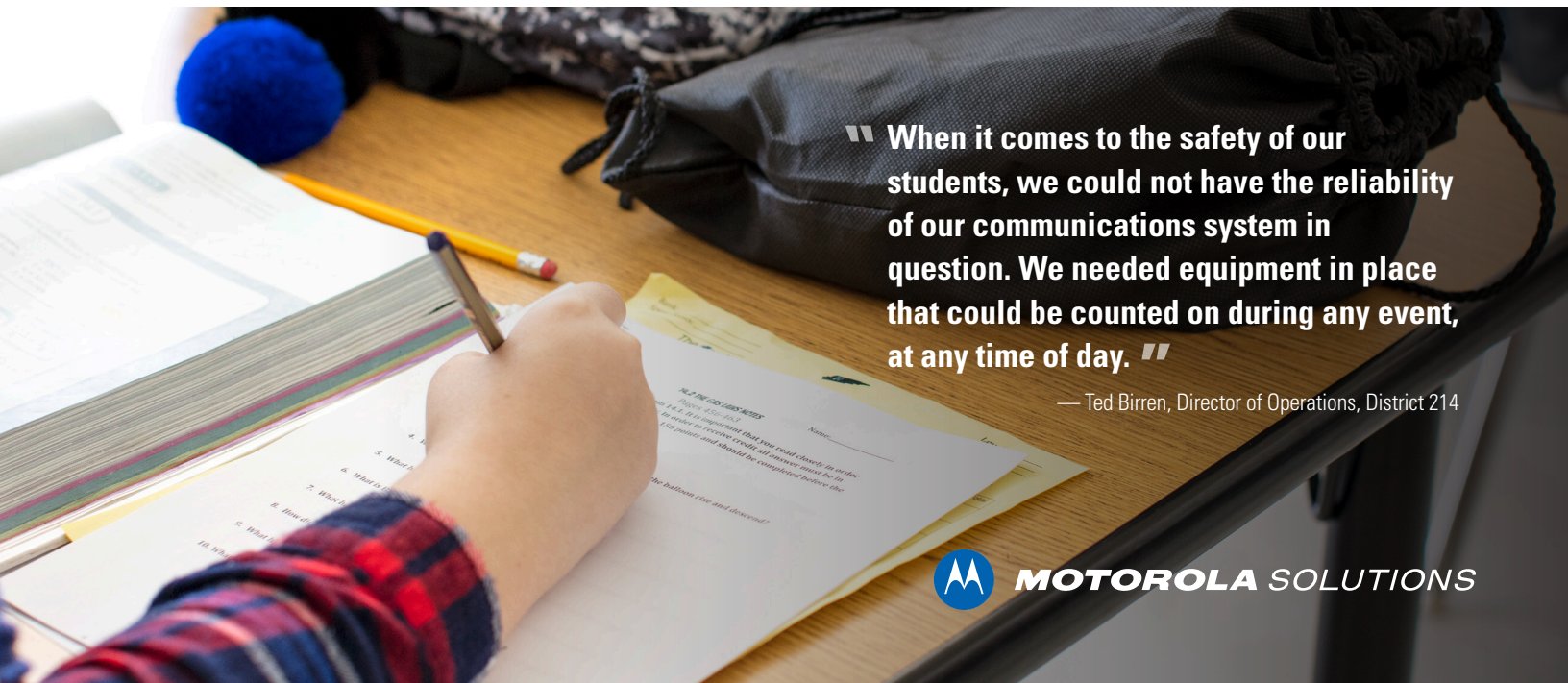


**“ We wanted to be able to test products and make cohesive purchasing decisions that would benefit the district, rather than just individual schools. It was time for a unified and scalable solution that could grow with us and support our future needs. ”**

— Ted Birren, Director of Operations, District 214

### A Growing Fleet of School Vehicles

With a large student population comes a large number of vehicles to support daily operations and transportation for after-school activities. While the traditional yellow school buses that transport students to and from school are run by an outside organization, the district manages other buses, vans and maintenance vehicles for a multitude of activities, such as travel for sporting events. Keeping drivers connected with school personnel, managing logistics and ensuring that the fleet is adhering to its route and speed restrictions were other important requirements when upgrading the district's communications.



**“ When it comes to the safety of our students, we could not have the reliability of our communications system in question. We needed equipment in place that could be counted on during any event, at any time of day. ”**

— Ted Birren, Director of Operations, District 214



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## SOLUTION

With the help of the local channel partner, High School District 214 turned to Motorola Solutions Team Communications to enable employees to connect instantly, without boundaries and with added intelligence. They deployed MOTOTRBO XPR two-way radios and repeaters across campus for key personnel including administration and principals, security, building and ground maintenance, athletics and technology staff.

With the all-digital radio upgrade, the district was also able to leverage advanced data applications. They adopted the neoConneX Fleet Manager, a plug-and-play GPS fleet-tracking solution, to provide on-demand visibility into the locations of school vehicles, activity vans, buses and driver's ed cars, bringing added intelligence and security to daily operations.

The district recognized cost savings by instituting a district-wide deployment, versus making purchasing decisions school by school. By using one vendor, all radio programming and licenses are now centrally managed across the district, taking the financial onus and management responsibility off of the individual schools.

## BENEFITS

### Integrated, Instantaneous Communication

Once the district deployed the new MOTOTRBO radios to key personnel, employees were up and running quickly. The security staff, in particular, were already familiar with analog radios, so that transition to MOTOTRBO digital two-way radios was fairly seamless.

Employees were able to connect with exceptional voice clarity and coverage. The district created more than a dozen talkgroups, with the primary user groups including security, maintenance, athletic staff and IT. They also enabled a district-wide talk channel, allowing administrators and other personnel to communicate with each other anywhere — from the sidelines of the high school's football stadium to a colleague in a bustling school cafeteria on the other side of the district.

"The reliability that MOTOTRBO brings is a must for our school conditions," said Birren. "The radios are built to withstand whatever comes our way — drops, weather, noisy environments — and have risen to the occasion time and time again."

**“ We wanted a company that would be a true partner and not just an equipment vendor. We were focused on the long-term viability of the relationship and as a leader in the education industry, Motorola Solutions was the logical choice. ”**

— Ted Birren, Director of Operations, District 214

## Unified Team Communications Across Boundaries

While key personnel were outfitted, not every school employee was assigned a radio. For those employees with mobile devices, District 214 deployed WAVE Work Group Communications, which enables users on mobile devices and commercial carrier networks to communicate with radio users.

With WAVE Work Group Communications, the district gets the peace of mind that everyone can be part of the conversation, as needed, regardless of device or location. Today, employees can communicate in an instant and across boundaries with PTT — from radios to smartphones. The district is looking to add in tablets and laptops to their network to support future growth.

Recently, the MOTOTRBO communication system was put to the test when the district hosted an NFL team for a football scrimmage at one of the school's fields. With thousands of attendees on hand, the event required enhanced security and 200 staff members, who coordinated security and information sharing via the two-way radios and mobile devices through WAVE Communications. With the touch of a button, users could securely link multiple groups to keep all parties updated.

"We never know when a situation will arise, but we know the MOTOTRBO system will be there waiting and ready when we need it," said Birren. "We've told other school districts how versatile and efficient it is, both for special events and for everyday situations, such as handling a maintenance issue or a student cutting class."

## Communicate with Added Intelligence

With neoConneX Fleet Manager, the district could proactively manage more than 100 vehicles, including driver's education cars, passenger vans, utility vehicles and multi-function buses for athletic events. Vehicle data, such as location and speed, is recorded every 30 seconds and can be monitored and accessed on-demand. The system has been an important part of routine safety monitoring as well as a key tool for investigations.

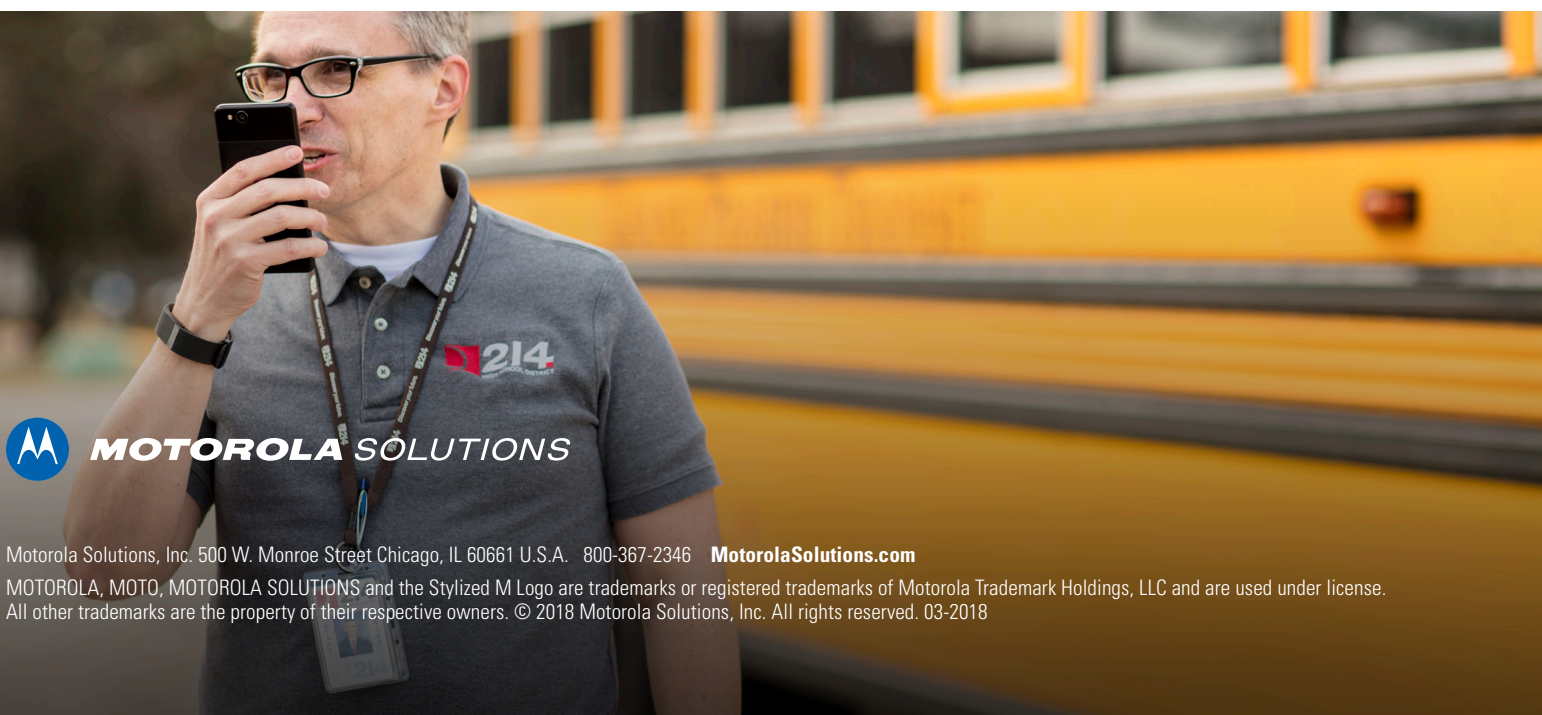
## Emergency Preparedness

In the event of an emergency, users can take advantage of the all-call emergency channel, which automatically interrupts communications across all other channels and instantly delivers an alert. In addition, the district's radios are tied into the Wheeling Dispatch Center (and will soon be connected with the NorthWest Central Dispatch), allowing employees to instantly connect with public safety officials at the scene to exchange information as incidents unfold.

During a recent police situation at one of the schools, employees utilized two-way radios during lock down procedures, communicating with authorities on-site to stay updated. The district also conducts regular reviews of its emergency response and procedures and utilizes recordings of the radio audio traffic to refine processes for future situations.

"Motorola acts as the bridge between us and first responders, enabling everyone to be on the same channel and helping us simply keep students and staff safer," said Birren.

To find out how your district can instantly coordinate and collaborate for a safer, more productive learning environment, visit [www.MotorolaSolutions.com/Education](http://www.MotorolaSolutions.com/Education).



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