



# GLEN ELLYN SCHOOL DISTRICT 41 HELPS KEEP SCHOOLS IN TOUCH AND STUDENTS SAFE WITH MOTOTRBO™ RADIOS AND IP SITE CONNECT



**Glen Ellyn, Illinois, School District 41 relies on MOTOTRBO digital radios to keep communications available during emergencies and increase efficiency for day-to-day operations.**

## SITUATION

**When a tornado blew through Chicago's western suburbs, knocking down trees and power lines, Glen Ellyn School District 41 lost both power and communications.**

In August of 2008, as Glen Ellyn School District 41 schools were letting out for the day and students were boarding buses for the ride home, a tornado struck. Teachers rushed students, who had not yet left, back into the buildings and began trying to contact the district office. However, the storm had knocked out power to two of the schools as well as the district office, leaving them unable to use the telephone, email or get through on overloaded cell phone lines. With no way to reach out for help and no way for frantic parents to contact the school, teachers, staff and students hunkered down and rode out the storm.

## SOLUTION

**MOTOTRBO digital two-way radio system with battery backup, Uninterrupted Power Supply (UPS) and IP Site Connect help ensure communications will be available in event of emergency.**

Although each of the five district schools had two-way analog radios, coverage did not extend beyond school grounds in the hilly, tree-covered district. Administrators began looking for a solution that would allow all district schools to communicate with each other as well as

the administration center, even in the event of a power outage. MOTOTRBO two-way digital radios with repeaters connected through the school's networked computer system via IP Site Connect, and secured with emergency backup, helped ensure that whether they needed to collaborate on day-to-day business or quickly and efficiently organize emergency situations, communications would always be available.

## RESULTS

**Uninterrupted communications between schools and administration office and 100% coverage throughout the district helps increase safety and security.**

MOTOTRBO radios provide Glen Ellyn School District 41 with a solution that enables reliable communications during emergencies, even when power has been lost, improving the district's ability to keep its students safe. However, the solution also allows teachers, school staff and district personnel to work more efficiently on a day-to-day basis. "Before, when we were outside of a building using the analog radios, there was no way we could get hold of a custodian working in the basement," says Bob Ciserella, Assistant Superintendent, Glen Ellyn School District 41. "Now we have greater flexibility because of the robust capability of the MOTOTRBO digital radio system."

## CUSTOMER PROFILE:

### Users

- District Office Personnel, Administration, Teachers, Custodians, Bus Garage

### Motorola Solution

- MOTOTRBO XPR™ 6550 portable radios
- MOTOTRBO XPR™ 4550 mobile radios
- MOTOTRBO XPR™ 8300 repeaters
- MOTOTRBO control station (XPR™ 4550 mobile radios, desktop microphone, speakers, power supply with battery backup)
- IP Site Connect

### Solution Features

- Seamless, reliable communications between schools and with district office
- Nearly 100% coverage both in and outside of buildings, including basements
- Battery backup and Uninterrupted Power Supply (UPS) for reliable communications, even during power outages

## DISTRICT ENSURES COMMUNICATIONS IS AVAILABLE, EVEN WHEN POWER IS OUT

Located about 25 miles west of downtown Chicago, Glen Ellyn, Illinois, School District 41 knows that parents expect not only a superior educational experience for their children, but also the safest environment possible. Approximately 3,600 students attend five schools within the eight square mile K-8 elementary school district.



MOTOTRBO XPR Radios

### STUDENT SAFETY RATES AS HIGH AS ACADEMIC ACHIEVEMENT TO PARENTS

From instituting new safety procedures to installing security cameras throughout the campuses, schools are taking every precaution to keep their students safe. In a July 2009 address to the House Education and Labor Committee Joint Subcommittee Hearing on Strengthening School Safety, Kenneth Trump, president and CEO of National School Safety and Security Services, Inc., said, "Parents will forgive school and other public officials if school test scores go down. Parents are much less forgiving if something happens to the safety of their children which could have been prevented or better managed if it does occur. School safety is perhaps the only education priority over academic achievement in the eyes of parents, who understand that children must first be safe in order to learn."

When a tornado blew through Chicago's western suburbs one August afternoon in 2007 around the time school was being dismissed, the force of the storm's winds downed power lines and severed communication with two of the district's schools and the district's administration center.

"It happened at 3:15," says Bob Ciserella, Assistant Superintendent, Glen Ellyn School District 41. "We had just dismissed school and had buses out on the road. All of a sudden the sky got dark, the wind started to blow and trees started falling. Parents tried to call but couldn't get through so they began arriving at the schools in the middle of this storm. It was a bad situation."

The district typically relied on land line phones, email, cell phones and analog two-way radios for communications. However, the storm knocked out electricity, leaving computers and telephones useless without adequate backup power. With limited coverage, the analog two-way radios did not reach beyond the individual schools' perimeters. Cell phones were also useless due to the unprecedented spike in call traffic during the storm, which overloaded circuits and prevented people from getting an open line.

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Bob Ciserella  
Assistant Superintendent  
Glen Ellyn School  
District 41



### **DISTRICT LOOKS FOR BETTER COMMUNICATIONS SOLUTION**

District 41's administration staff began investigating emergency communications equipment options. Backed by an audit performed by National School Safety and Security Services, a Cleveland, Ohio-based consulting firm, the team placed priority on the acquisition of two-way radio equipment. In the event of a crisis, the equipment would enable dependable communication between the district's Central Services office and the schools, as well as with first-responders and the school bus company.

"We wanted an independent solution, meaning that we would own it and wouldn't have to rely upon others," says Ciserella. "We were impressed with the rapid and professional response of the local Motorola channel partner, as well as the fact that they came up with the best solution for our needs. MOTOTRBO was part of that solution."

### **MOTOTRBO RADIOS FOR RELIABLE COMMUNICATION EVEN IN A CRISIS**

Understanding the emphasis placed on reliability, United Radio Communications proposed battery backup and a UPS system that would help ensure they never lost communications in a crisis. The channel partner also proposed MOTOTRBO IP Site Connect, which would connect two wide area networks to cover the district's area of operation. Interconnecting each school's MOTOTRBO radio system through the Internet would enable personnel from each school to stay in contact with the other schools, as well as with the district office.

The administration recommended the MOTOTRBO system, equipping each building with a desktop radio hardwired to an antenna and supported with battery backup. Installation of centrally located roof-mounted repeaters would extend signal range, making the system stronger and more reliable than their current analog two-way system and would allow communications among district buildings and with emergency personnel, providing coverage throughout the entire district.

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Kenneth Trump  
President and CEO  
National School Safety and Security Services, Inc.

(Addressing the House Education and Labor Committee Joint Subcommittee Hearing on Strengthening School Safety in July, 2009)

## CASE STUDY

GLEN ELLYN, IL SCHOOL DISTRICT 41



### AN EASY DECISION, EASILY JUSTIFIED

Recalling the school board's discussion about whether to spend the money, Ciserella said that one board member finally noted that the \$35,000 investment would be in place for a minimum of ten years and based upon a \$50M budget, the expenditure amounted to only \$3,500 a year. "We thought it was a good recommendation for a valid need," says Ciserella.

The MOTOTRBO radios, with dual analog-digital capability, allowed users to easily switch over to analog mode to seamlessly communicate with personnel still using the old analog radios, enabling a cost-effective migration to all-digital. Each of the schools, as well as the district office and the transportation office, were issued a MOTOTRBO digital portable radios, along with eight desk top control stations that are used by the schools' administrative personnel.

### COVERAGE THROUGHOUT THE DISTRICT

The district is in a hilly area, which made it even more difficult for the analog radios to get a signal outside the school building. "The MOTOTRBO radios allow us to talk virtually from anywhere in our district to anywhere in our district, including the bus garages," says Ciserella. "Our buses are operated by First Student Bus Transportation Services and we gave their coordinator one of our radios too. That allows us to maintain contact with the buses as well."

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[www.motorola.com/mototrbo](http://www.motorola.com/mototrbo)

1-800-367-2346

### DAY-TO-DAY VALUE

While emergency communications was the priority, the district did not intend for this solution to just be an emergency tool. Administrators wanted a solution that personnel within each of the schools and the district buildings could use to increase efficiency on a daily basis. The district has begun to purchase additional radios annually to roll out to the schools, enabling them to communicate among themselves whenever needed. "When we used the analog radios, if someone was standing outside, they could not contact a custodian who was in the basement or someone who was off the school grounds," says Ciserella. "Now we have greater flexibility due to the robust ability of this system."

The radios also allow staff to increase efficiency through better coordination of school activities, such as assemblies, sporting events, school bus loading/unloading and cafeteria peak periods. Teachers, bus drivers, crossing guards and coaches can deter, or take immediate action as needed, when disturbances or emergencies occur.

"In the end, it's all about student safety," says Ciserella. "It's difficult to come up with a cost-benefit analysis in education. We're not creating widgets, we're working with students. Whatever we can do to keep them safe is a win for all of us. MOTOTRBO was the right solution."

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