

# Improving radio communications in Sarasota County schools

How Motorola Solutions technology is extending mission-critical radio signals into Sarasota County schools

## Sarasota County Schools

Sarasota County Schools (SCS) is a large school district providing a high-quality education for students in Sarasota County, Florida. The district's mission encompasses not only academic success but also the personal development of students to prepare them for college, a career and life beyond that. This commitment involves a comprehensive approach to education, incorporating innovative teaching methods, robust extracurricular activities and a strong emphasis on student safety and well-being.

SCS is responsible for 56 schools and over 45,000 students across the county, overseeing a network of elementary, middle and high schools. This significant scale reflects the district's vital role within the community and highlights how important safety and security are within every school under its jurisdiction.

### Customer

Sarasota County Schools

### Location

Sarasota County, Florida, USA

### Industry

Education

### Solutions

- Distributed Antenna Systems (DAS)

### Outcomes

- Custom-designed DAS installed with industry-leading components
- Improved radio coverage and performance within school buildings
- Careful planning, frequency coordination and proper installation techniques deployed





## Challenges

The safety of staff and students is a top priority for SCS. The district has a dedicated team of School Resource Officers (SROs), safety personnel and campus safety monitors who work closely with local law enforcement and emergency personnel to keep its schools safe and community secure.

Radio communication is a vital part of the work these SROs and law enforcement personnel do to keep students and staff safe within SCS schools. Weak radio signals inside a building can delay or impede the ability of first responders to provide adequate help. After-action reviews often stated that poor communication reduced the effectiveness of an emergency response. As a result, more local jurisdictions implemented building codes that require building owners to ensure reliable first responder communication indoors.

Many of SCS' school campuses are made up of various buildings, most of which have several floors, across a wide area. This can be challenging for radio systems that are not equipped to maintain strong signals inside buildings, potentially leaving SCS with limited and ineffective communication channels.

The district needed technology that ensured radio communication between SROs, law enforcement personnel and dispatch teams remained clear and uninterrupted.

## Solutions

SCS partnered with Motorola Solutions to extend public safety P25 radio coverage within its schools using a Distributed Antenna System (DAS). Motorola Solutions was contracted to install this technology in 26 of SCS' schools, including elementary, middle and high schools.

DAS are installed in buildings to both amplify and distribute radio signals and help provide reliable communication for first responders who perform life-saving duties. They boost the signal indoors for communication reliability of any two-way radio system in any frequency band — public safety or private enterprise.

Motorola Solutions' dedicated DAS team worked closely with SCS to custom design each system specifically to its buildings in those 26 schools, using floor plans and information from on-site surveys. All of the DAS were installed with industry-leading equipment to help ensure reliable service. Each system was verified for code compliance and tested to ensure no interference with communication outside the building.

The 26 schools are of varying sizes and the systems installed consisted of both coaxial DAS systems and, for the larger schools, fiber optic fed systems. The Bi-directional Amplifiers (BDAs) used to boost the radio signals do not interfere with the MACRO P25 LMR systems used by SCS, meaning communications remain uninterrupted.





Moving our district communications over to the P25 TDMA system has been an emergency management win. Not only do we have connectivity with our emergency responders, but we had constant contact with each school before, during, and after three major hurricanes. This connection allowed for secure district communications to continue in mass while all other systems had failed.”

– Jason Overbay  
Director, Office of Safety, Security, and Emergency Management/  
School Safety Specialist Schools Police Department  
Sarasota County Schools

## Amplified radio systems

After partnering with Motorola Solutions, SCS can now facilitate clear, amplified radio communications throughout buildings within its schools. This is vital for when SROs and public safety personnel need to respond to incidents on campuses and stay connected when it matters most.

After collaborating with Motorola Solutions, SCS (Sarasota County Schools) has significantly enhanced the capability for clear and amplified radio communications within its school buildings. This advancement is particularly crucial in the context of school safety and emergency response, where timely and effective communication can make a critical difference during incidents on campus.

Integrating Motorola Solutions’ advanced communication technology allows SROs and public safety personnel to maintain seamless contact with each other and central command, no matter where they are located within the school. This real-time connectivity is vital during emergencies, as it ensures that all responding personnel are updated with the latest information and can coordinate their actions efficiently.

Moreover, the enhanced radio communications system not only improves response times but also bolsters the overall safety infrastructure of the school environment. With clear audio quality and reliable coverage throughout the buildings, SROs can swiftly share important information, such as the nature of an incident or the need for additional resources, without the disruptions that can occur with less effective communication tools.

Beyond emergencies, this partnership supports routine safety measures and daily operations within schools. For instance, during drills or day-to-day activities, SROs and staff can communicate effectively, fostering a safer and more organized environment for students and faculty alike.

Ultimately, the collaboration between SCS and Motorola Solutions represents a proactive approach to school safety, ensuring that when it matters most, those responsible for safeguarding students and staff are equipped with the tools they need to respond promptly and effectively. This commitment to enhancing communication not only strengthens emergency preparedness but also instills a greater sense of security within the school community.

To learn more, visit: [www.motorolasolutions.com/das](http://www.motorolasolutions.com/das)



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