



# PROTECTING THE FUTURE

## BUILDING A SAFER SCHOOL ENVIRONMENT

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UNIFIED COMMUNICATION SOLUTIONS ENHANCE  
SCHOOL SAFETY AND BOOST EFFICIENCY

## NEW AND EVOLVING THREATS LEAD TO A



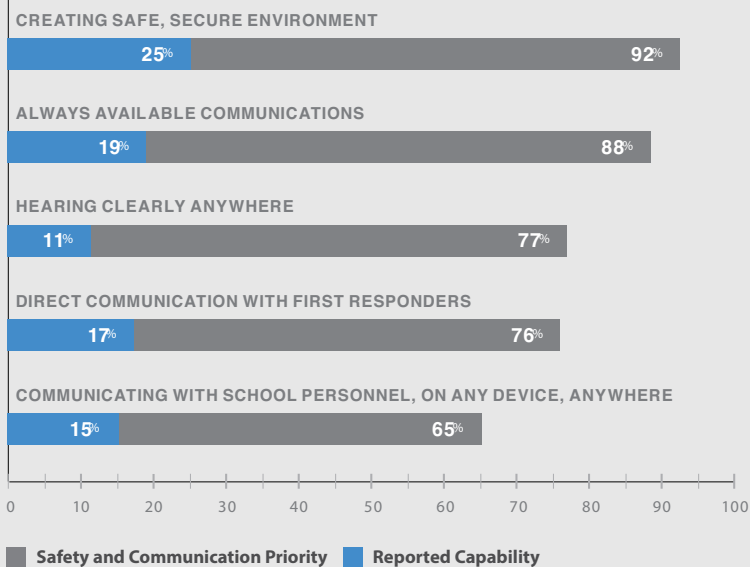
In K-12 institutions across the country, educators, school officials and parents are searching for comprehensive solutions to preserve student and staff safety. Tragic events such as school shootings – while still far too frequent – are relatively rare. However, K-12 schools also face everyday emergencies that require instant, coordinated responses from multiple teams, including local public safety officers.

For those districts fortunate enough to receive increased funding for school safety improvements, choosing among the wide variety of different solutions available is a challenge. For districts without additional funding – but with increased scrutiny from parents and the community – applying their budget for maximum safety benefit is even more critical.



## THE DISCONNECT:

SCHOOL PRIORITIES VS  
SCHOOL CAPABILITIES



### SOURCES:

1. The Role of Technology in Improving K-12 School Safety (2016) The Rand Corporation, the Police Executive Research Forum, RTI International, and the University of Denver
2. MSI 2017 US EDUCATION SURVEY

Regardless of school size or location, research shows the top priority to support student and educator safety is robust, reliable communications between educators and first responders.

In a recent survey, educators overwhelmingly agreed on the importance of creating a safe learning environment and having always available communications (See left sidebar). Unfortunately, those same educators indicate that their actual communication capabilities fall short, putting our students and teachers at risk and minimizing the efficiency of emergency response.





## TEAM COMMUNICATIONS INCREASE



Help can come from any direction: a teacher on the playground with a mobile phone, a coach on the practice field with a tablet, a school resource officer with a radio or a video system administrator on a laptop.

Enabling all of these team members to communicate instantly, regardless of device, network or physical location, is the key to streamlining emergency response and ensuring that critical information – from purpose-built applications, video or alarms and alerts – gets to those who need to know.

### Unified team communications will help you...



Equip your critical communications team with radios that are purpose-built for push-to-talk communications on private networks that you can rely on in an emergency. When bad things happen, nothing is faster than push-to-talk.



On-site or off-site, superintendents, administrators and educators can communicate with radio users on any device and on any network, with the WAVE Push-to-talk application.



A wide-variety of applications, from indoor and outdoor location tracking, to fleet management, alarms and alerts, work order ticketing, incident management, and video surveillance maximize the safety and efficiency of your school operations.



Your operations and IT teams are already overworked and understaffed. With Managed and Support Services from MCA, the time and effort to manage your radio system infrastructure and devices can be offloaded.

# SOLVING CUSTOMER PROBLEMS WITH A DIVERSE PORTFOLIO OF TECHNOLOGIES AND A TEAM OF EXPERIENCED ENGINEERS AND SERVICE TECHNICIANS.



## Boost Efficiency

- Maintain instant communication between team members and departments
- Improve production/efficiency during peak times
- Track physical items & team members within an organization

## Increase Safety & Security

- All Call
- Private Call
- Protected Channels
- Privacy of Operations

## Lower Expenses

- Use operating budget vs. capital budget
- No maintenance or life-cycle costs
- Reduce risk of liability



## MANAGED SERVICES

Focus on what's important. Know that every aspect of your communication is being managed by dedicated, knowledgeable support staff. Build a custom solution without having to worry about what to buy, how it should be deployed, managed and supported.





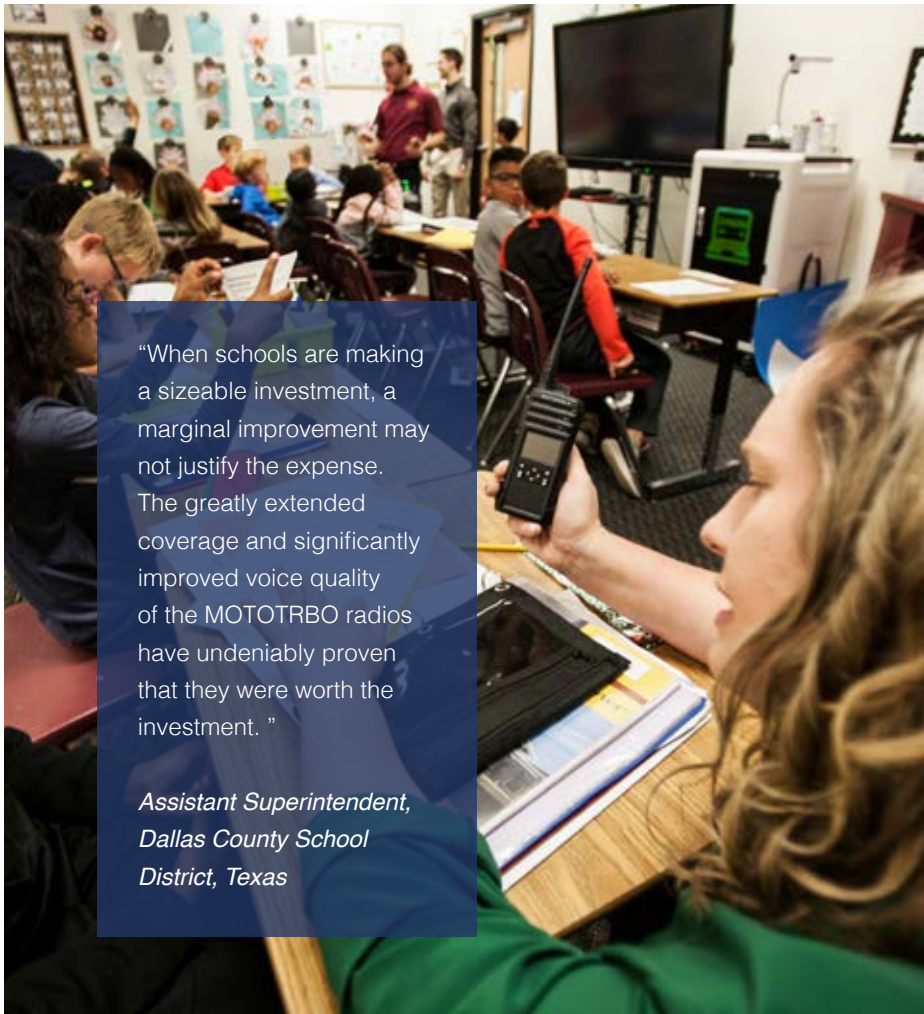
## COORDINATE AND COLLABORATE INSTANTLY



MOTOTRBO TWO-WAY radios unify your staff and fleet with instant, always-available communications, anywhere they go. When emergencies arise – from an injured student to an intruder on campus – our TWO-WAY radios connect staff directly and instantly to public safety agencies.

Choose the right devices for the right user, such as the ultra-thin SL 7000e series portable radios or the XPR 5000e series mobiles with integrated Bluetooth® 4.0 and integrated WiFi® capabilities.

Wireless accessories let personnel interact freely so bus drivers can keep their hands on the wheel and eyes on the road. MOTOTRBO integrates voice and data seamlessly, with enhanced features that are easy to use – including integrated Bluetooth, GPS location tracking, text messaging and Intelligent Audio that automatically adjusts volume to the environment. Whether a custodian is in a boiler room or a coach is in a crowded gym, you can be sure they will hear and be heard clearly.



"When schools are making a sizeable investment, a marginal improvement may not justify the expense. The greatly extended coverage and significantly improved voice quality of the MOTOTRBO radios have undeniably proven that they were worth the investment. "

*Assistant Superintendent,  
Dallas County School  
District, Texas*

### COMMUNICATION WITH CONFIDENCE

When dealing with a school emergency, the last thing on your mind should be the functionality and performance of your communications. Managed & Support Services provide a convenient and reliable approach to supporting and managing your communications with a predictable operating cost model and performance guarantees.

Our services are based on best practices for provisioning, programming, support, maintenance and repair, in order to ensure your system is operating at peak efficiency when it matters most. Rely on MCA to lower your total cost of ownership and manage the complexity of your communications so you can focus on what matters most: a productive learning environment.

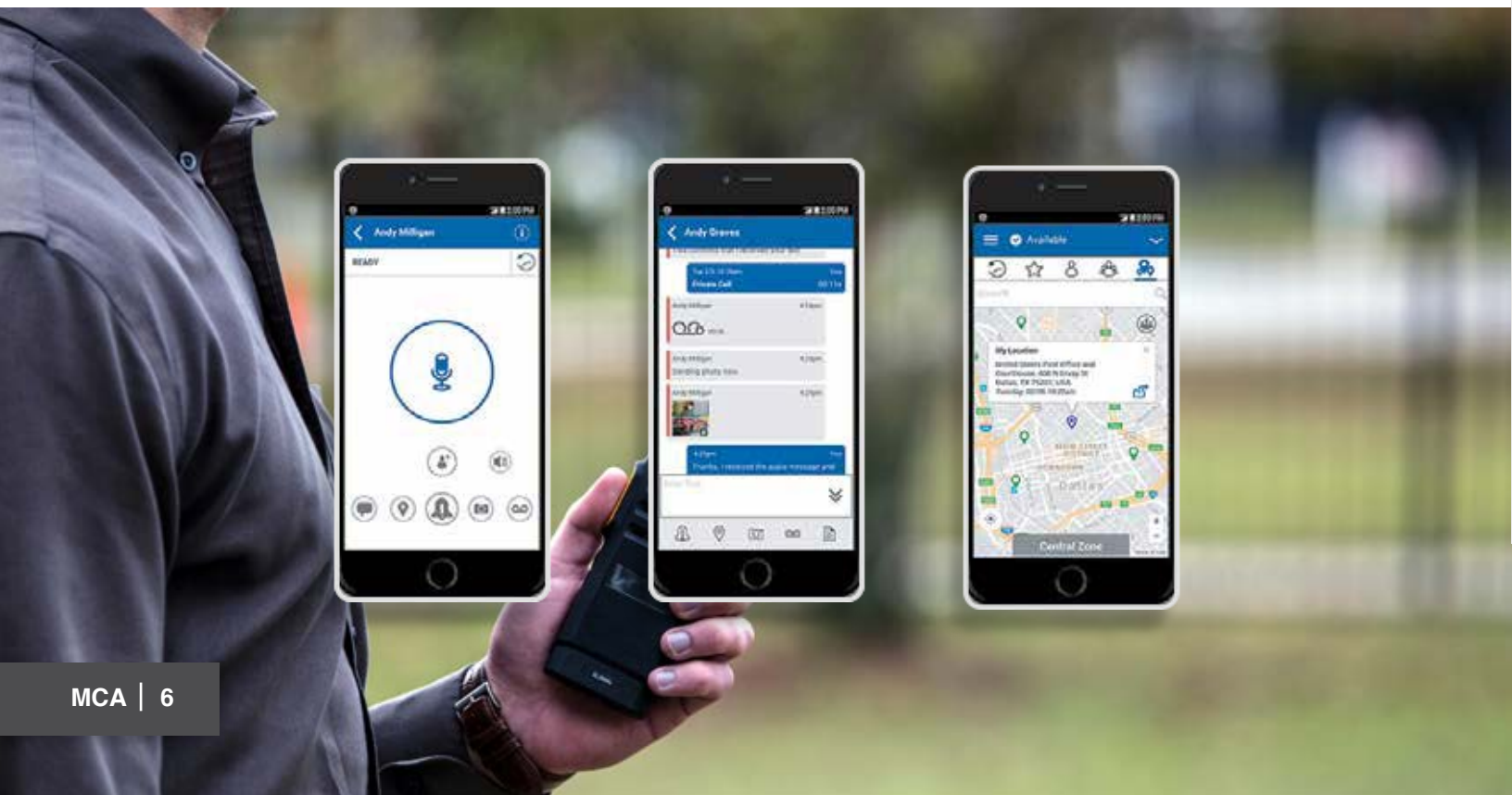


## CONNECT TO STAFF ON ANY DEVICE, ANYWHERE WITH THE WAVE™ PUSH-TO-TALK APPLICATION



Leverage the resources you already have to communicate with employees on their own devices. Available in on-premise or cloud-based versions, WAVE extends your radio system's reach to those who may not carry radios. Now the principal at a convention or the administrator away from campus can use their smartphones as push-to-talk devices to communicate seamlessly with radio users at school.

WAVE connects to virtually any device – smart phones, laptops, tablets and even landlines – on any public or private mobile data network, including WiFi. You get seamless and secure connectivity, affordable push-to-talk and the freedom to keep existing service plans and devices.





## MANAGE AND MONITOR BUSES WHEREVER



Need to contact a student on the bus, redirect a vehicle or make sure your fleet is adhering to its route? The integrated GPS on Motorola Solutions mobile radios helps you monitor bus locations and manage logistics. Now schools can track each vehicle to improve security, increase student safety and effectively respond to emergencies, weather events, traffic and more.

With the emergency call button, drivers can alert dispatch when they need assistance. Remote monitoring lets you listen in when a driver is unable to respond. Apps can track bus inspections, monitor fuel usage, manage maintenance and inform you if bus doors are left open or if drivers are on duty. We designed our fleet management solutions to keep your drivers connected – efficiently and safely – wherever they go.





## ALL SECURITY OPERATIONS IN ONE PLATFORM

Simplify your security operations with an easy-to-use platform for managing incident records and dispatch to communicate instantly across devices and make proactive planning decisions.



# CREATING SAFE SCHOOLS WITH VIDEO SECURITY, ANALYTICS, & OPERATIONAL MANAGEMENT SOFTWARE



Our nation's schools are supposed to be safe for teaching and learning, free from crime and violence - a place where the next generation can grow and learn. Yet everyday incidents, like a fight in a hallway, an allergic reaction on the playground or an injury in gym class, threaten to disrupt the educational process. Beyond these incidents, the rise of extreme events - including active shooters and bomb threats — are challenging schools to prepare for worst-case scenarios.

MCA now offers the mission-critical ecosystem you need to build a safer school environment. Combining voice, video, software and services, our ecosystem helps you not only respond and manage both the everyday and the critical emergencies, but also recognize patterns, anticipate actions and help prevent situations as they develop.



## PROVIDE YOUR SCHOOL WITH THE CAPABILITIES TO DETECT, ANALYZE, COMMUNICATE AND RESPOND TO POTENTIAL INCIDENTS.



### DETECT

- CommandCentral Community
- Video Security
- License Plate Recognition
- Watchlist Alerting
- Access Control



### ANALYZE

- Appearance Search
- Identity Search
- Unusual Motion Detection
- Focus of Attention
- Self-Learning Video Analytics



### COMMUNICATE

- MOTOTRBO Two-way Radios
- Radio Alert
- WAVE Push-to-talk Communications
- Communicator: Mass Notification
- Ally Incident & Records Management



### RESPOND

- Ally Dispatch
- CommandCentral Aware
- Mission-Critical Communications
- Critical Connect
- Access Control for Emergency Response



**Managing your school grounds can be a challenge.** From overseeing building entries, controlling student and visitor comings and goings, and monitoring access, detection plays a critical role in minimizing potential threats.

Integrated video security identifies and monitors unusual activity and potential intruders across campus. Automatic license plate recognition analyzes vehicles entering and exiting campus — detecting and reporting suspicious vehicles on school property. Building entry management provides access control, automates lock downs and pushes notifications of potential entry breaches to your School Resource Officers' radios.

## DETECTION SOLUTIONS

### COMMANDCENTRAL COMMUNITY

Ensure anonymous, confidential tip submissions using a web-based form, enabling students to “say something” at any time from their laptop or smartphone.

### VIDEO SECURITY

Capture critical details and enhance visibility across campus with specialized cameras for every location — such as fish-eye for classrooms, multi-sensor for hallways, high definition for parking lots.

### LICENSE PLATE RECOGNITION

Monitor all roads approaching and surrounding your campus and automatically alert security and law enforcement when threat-designated vehicles enter school grounds.

### ACCESS CONTROL

Manage staff, student and visitor access to buildings or restricted areas on school grounds using a role-based system with instant detection of individuals at access points.

### WATCHLIST ALERTING

Identify people of interest based on a secure, controlled watch list created and maintained by authorized users at the school.



*License Plate Recognition*



## ANALYZE: ENABLE PROACTIVE MONITORING AND MANAGEMENT



Appearance Search

## ANALYTIC SOLUTIONS

### APPEARANCE SEARCH

Find who you are looking for faster with searches using both physical descriptions and facial analytics.

### IDENTITY SEARCH

Map personnel movements on-site with video feeds intelligently integrated with ID badge and credential activity tracking in order to visually retrace campus movements.

### UNUSUAL MOTION DETECTION

Reveal atypical events with artificial intelligence that “learns” typical activities and flags unusual motion — turning unknowns into insights.

### FOCUS OF ATTENTION

Easily identify where action is required with potentially critical video activities identified by color-coded hexagons so you can focus your attention on what’s important.

### SELF-LEARNING VIDEO ANALYTICS

Monitor school properties 24/7 with video software that detects abnormal or concerning activity to enable immediate response.

# 57%

OF TEENS ARE “SOMEWHAT WORRIED” OR “VERY WORRIED” A SHOOTING WILL OCCUR AT THEIR SCHOOL.\*

Every day, you’re responsible for monitoring a large campus to maintain the safety of hundreds of students. Scouring through the collected data in order to recognize concerning behaviors on and around campus is a demanding task.

Video analytics detect potentially suspicious activity on school property, providing real-time insights into campus movements.

Appearance searches quickly and seamlessly explore video footage and locate students and visitors through physical descriptions, allowing easy identification. Unusual motion detection reveals atypical events which need investigating

[\\*SOURCE](#)

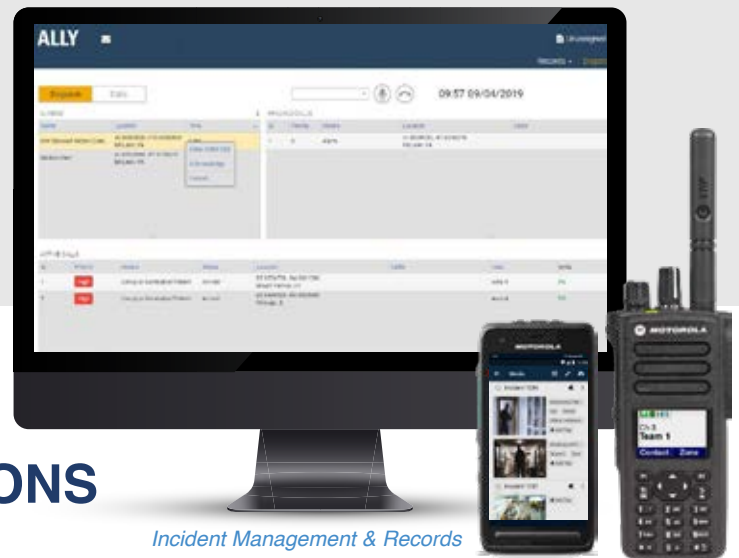
## COMMUNICATE: COMPREHENSIVE SECURITY DATA



**Whether it's a routine fire drill, a sudden food fight in the cafeteria or an emergency situation, clear and timely communication is key to creating a connected and protected campus.**

Communications — including radios and LTE devices — instantly and reliably connect your security, administration, bus drivers and staff. Radio alerts ensure all personnel are informed of critical alerts. Mass communicators enable you to send key information to parents and guardians quickly and easily, keeping the community aware of campus activity.

Connectivity — both on and off campus — is an important part of creating a safe and collaborative educational environment where you and your team are always aware.



## COMMUNICATION SOLUTIONS

### MOTOTRBO TWO-WAY RADIOS

Ensure your team can hear and be heard across campus with superior voice clarity, long battery life and outstanding range.

### RADIO ALERT

Receive critical alerts directly on your radio with sensor and camera analytics that connect seamlessly with your system, monitor activity and provide for a more focused response.

### WAVE PUSH-TO-TALK COMMUNICATIONS

Communicate instantly regardless of device, network or geographic boundaries with extended connectivity and reach that enables sharing to smartphones, tablets, laptops and even land-lines — enhancing situational awareness.

### COMMUNICATOR - MASS NOTIFICATIONS

Notify and mobilize critical personnel at a moment's notice with automated alerts sent by text, email or voice message from laptops or smartphones, ensuring easy information sharing across groups.

### ALLY INCIDENT & RECORDS MANAGEMENT

Enhance incident and records management with customizable record fields and multimedia attachments, all accessible from web-enabled devices, promoting proactive trend analysis and security planning.



## RESPOND: INSTANT ACCESS TO PERSONNEL



Whether it's an everyday situation or an emergency, being ready and aware can make a critical difference. Having a comprehensive communications and action plan that can be seamlessly activated ensures your personnel are able to respond calmly and effectively with minimal disruptions to the learning environment.

Emergency connectivity ensures instant access to your local law enforcement agency for immediate notification and effective engagement of emergency response teams. Mission-critical devices provide interoperability and seamless communications when you need it most. Real-time intelligence shares alerts and live video feeds with campus personnel and public safety, enabling a coordinated and informed response and providing eyes on the scene for school staff.

**MORE THAN 228,000 STUDENTS HAVE EXPERIENCED GUN VIOLENCE AT 234 SCHOOLS SINCE COLUMBINE IN 1999.\***

\*SOURCE

## RESPONSE SOLUTIONS

### ALLY DISPATCH

Simplify and standardize your dispatch process and workflow with dashboard views and interconnectivity across devices, networks and locations.

### COMMANDCENTRAL AWARE

Provide incident insights with real-time video and direct connections between your school and local law enforcement, giving police eyes on the scene in seconds for a more informed response.

### P25 MISSION CRITICAL COMMUNICATIONS

Enable seamless coordination and connectivity – regardless of the situation – with interoperability between school personnel and local law enforcement to ensure a rapid response.

### CRITICAL CONNECT

Establish real-time coordination and dynamic, seamless, secure communication with connectivity between two-way radios and smartphones whenever and wherever it is needed.

### ACCESS CONTROL FOR EMERGENCY RESPONSE

Empower an immediate first response with full access to rule-based actions and notifications from any workstation, ensuring management of all ingress and egress points anytime, anywhere.



CommandCentral Aware

# SECURE DATA STORAGE & MANAGEMENT IN ONE CONVENIENT LOCATION



## MORE ABOUT ALLY

Ally stores all security data in one centralized database and provides complete data integration throughout the system. Ally's web-based nature means that your personnel have mobile access to store, search, retrieve and report on any system data, anywhere and at any time, using any device with an internet connection. You can take advantage of customizable fields and built-in analytics that make accurate data capture and reporting convenient and efficient. Ally's intuitive, user-friendly design makes it easy to navigate throughout the site, even if you have little or no software experience.

## ALLY IN ACTION

### Scenario #1

A dispatcher receives a call regarding a stolen bike on campus. She quickly enters the information into Ally, dispatches the nearest available officer and adds updated call comments shown in real time.



### WITH ALLY YOU CAN:

- Track Incident Information
- Dispatch
- Create Workflows
- Manage Training
- Attach Almost Any Electronic File
- Manage Maintenance Tasks
- Train Employees Easily
- Create a Mobile Command Center



The officer responds to the incident and fills out his report in Ally, attaching any applicable multimedia files. The officer then starts the workflow process for review.

### Scenario #2

Prospective and current students want to find out the crime statistics at a specific campus during the past school year. School administrators use Ally to run Clery reports that can be uploaded to the web and available to the public.



Administrators also use Ally's built-in heat map and statistical analysis capabilities to provide key decision makers with the data they need to create a safer campus.



## COMMUNICATE DIRECTLY WITH FIRST RESPONDERS WITH THE



The SchoolSAFE™ Network provides a direct line of communication between MOTOTRBO radios and public safety agencies' Project 25 (P25) radios. 9-1-1 dispatchers control and monitor the flow of information by bridging the radio systems 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 and can exchange information as an incident unfolds.

Sustainable co-training between the first responders and the schools with real-life scenarios is integral to the SchoolSAFE program. This helps school personnel learn how to act as incident command, operating their radios confidently and communicating only critical information to effectively inter-operate with public safety.



"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."

*Superintendent,  
Chardon Local Schools,  
Ohio*

### CONNECT INSTANTLY TO PUBLIC SAFETY WITHOUT TALKING WITH THE APX™ O2 CONTROL HEAD

The APX™ Control Head can complement any SchoolSAFE network or operate as a standalone device for an added level of safety; it is a mission-critical, P25 mobile radio with a large orange emergency button designed specifically for school safety.

With a touch of the button, school officials can instantly send an emergency alert to public safety without having to hold down the button to talk. Once the emergency alert is activated, a hot microphone lets the public safety dispatcher hear background sounds and provide updates to first responders heading to the scene.



## SUPERINTENDENT

Focused on the safety of students and staff throughout the entire district, the Superintendent uses the WAVE app on their smartphone to communicate as needed with all of the schools in the district. They also have access to the video management and incident management systems to review video of issues and run reports to communicate improvements and school safety incidents to concerned parents.

## IT MANAGER

Keeping the various communications systems in a large school up and running is a massive endeavor. The IT Manager is pleased they can use WAVE to connect their existing technology users without a “rip and replace.” Additionally, establishing a Managed Services contract greatly simplifies the management of the MOTOTRBO radio system for their already-overworked IT staff.

## TRANSPORTATION MANAGER

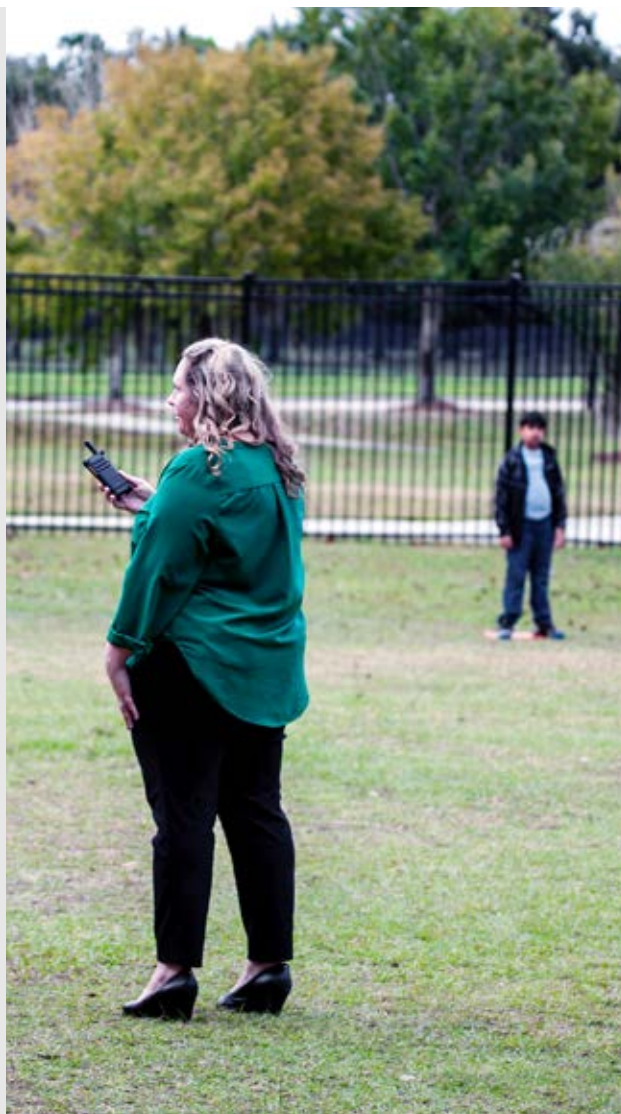
Bus arrivals and departures are easily disrupted by weather, traffic or emergency issues. Using a fleet management app, the Transportation Manager is able to keep his fleet on time by tracking bus locations and directing drivers. Even though the bus company is an outside agency using a different radio frequency, he is still in direct contact with key school personnel through the use of the WAVE application.

## TEACHERS

Depending on their preferences, the teaching staff is using a mix of radios and mobile devices with the WAVE application enabled. Whether teaching a class, monitoring the lunchroom or coaching the tennis team, teachers can communicate with their colleagues and the school security team with a single press of a button, minimizing distractions when they are responding to an emergency.

## SCHOOL RESOURCE OFFICER

On many campuses, the School Resource Officer (SRO) is the main communication point between the school communication network (radios and WAVE) and the more robust public safety P25 radio network. From tracking incident trends to monitoring video feeds to coordinating emergencies between first responders and school personnel, the SRO is the cornerstone of the school safety network.







## SMS TEXT ALERT

- Automatically provide SMS texts
- Instantly trigger based on National Weather Service or other specific actions
- Manually input SMS/text messages to send

## EMERGENCY RADIO SYSTEM BROADCAST

- Broadcast recorded emergency messages over two-way radio system
- Send text messages to MOTOTRBO radios (individual or group radio IDs)

## INDOOR AUDIBLE/VISUAL WARNING

- Integrate to new or existing PA or speaker system
- Voice, tone and/or strobe lighting
- Activate messages based on existing or impending event
- Opt-in or opt-out database registration



## WARNING AND ALERT DEVICES



TABLET



PUSH NOTIFICATIONS



RADIO



TEXT MESSAGE



BEACON



EMAIL



CELL



CALL BOX



OUTDOOR SIREN



MESSAGE BOARD



LAND LINE



DESKTOP ALERTS



CAP INTERFACE



SOCIAL MEDIA



PA SYSTEM



# DOES YOUR BUILDING NEED A PUBLIC SAFETY SIGNAL BOOSTER?



**Public Safety Code requirements are set forth by NFPA and IFC standards. With these building regulations, new building construction must meet a minimum level of emergency responder radio coverage (ERRC) as a condition for occupancy.** It is the responsibility of the General Contractor, building's owner or building's operator to have their building tested by a certified Public Safety DAS professional. If it's determined required, they must have a system installed and ensure it passes all code specifications.

## WHY DO I NEED A BDA/DAS?

**Fire Marshals are now enforcing a new code on buildings and sites of a certain size to meet specific public safety/emergency responder coverage requirements.** New and existing buildings/sites are required to prove proper radio coverage on the Public Safety Radio Systems used by first responders and emergency services in order to be FCC compliant.



### THE NEED

**The ability to communicate** with clear radio transmission between first responder teams preventing injuries and saving lives.



### THE ISSUE

**In-building radio signal degradation** – loss of radio signal within a site caused by elements in its structure (i.e. cement, metal, etc.), Low-E Glass and LEEDs construction.



### THE CONSEQUENCE

**Delays in securing the certificate of occupancy** wasting time and money.

Partner with Mobile Communications America (MCA) as your turn-key provider. **MCA experts will assist every step of the way:**

### Flexible Options - Managed Services Offer:

- **Complete turnkey solutions** with full deployment, technical and operational support
- **No capital required** – set monthly amount

STEP  
01



### DETERMINE THE SCOPE / GATHER REQUIREMENTS

MCA will work with you in a consulting effort to fully assess, determine scope and gather the necessary requirements to provide a complete solution.

STEP  
02



### SITE SURVEY AND DESIGN

RF Coverage is then tested, and if determined that a solution is required, MCA will formulate a plan and an iBwave design. Our design engineers are iBwave-certified and have years of inbuilding design experience.

STEP  
03



### INSTALLATION

With 20 years as a tier 1 DAS Integrator, MCA's project managers and technicians have a vast amount of expertise in installing any system, from a small, single-antenna BDA DAS to a campus-wide fiber solution.

STEP  
04



### SYSTEM COMMISSIONING

MCA's engineering group will optimize each component of the system to ensure peak performance using advanced RF test tools and bring the system fully on air. MCA installers are certified in all BDA and DAS OEMs and have experience with a wide variety of inbuilding environments.

STEP  
05



### FIRE MARSHAL APPROVAL

Once the system is on-air and tested, the system is ready for AHJ inspection and final signoff. MCA project managers will handle all upfront permitting and back-end approvals required to assure NFPA and IFC compliance.

STEP  
06



### ONGOING SUPPORT

MCA provides options for active monitoring and ongoing maintenance to safeguard that the system performs as required by code. Our maintenance contract includes ongoing system support and annual site visits, and our in-house Network Monitoring System (NOC) notifies MCA of any issues for quick maintenance response.



## KEEP YOUR SCHOOL SAFER WITH TEAM COMMUNICATIONS

The primary concern of every educational institution is to enable students to learn, grow and thrive in a safe environment. At MCA, our primary concern is to help our customers mobilize and connect in the moments that matter.

When an emergency arises, resolving it quickly, efficiently and with minimal disruption allows educators to get back to their true business. Enabling your staff to communicate instantly, MCA provides added intelligence without boundaries and speeds the resolution with confidence.

Team Communications from MCA helps your team minimize or even eliminate emergencies by transferring critical information from those that know to those that need to know. This creates the safe and efficient learning environment that allows your teachers to also transfer critical information.





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