

**SAFETY**  
REIMAGINED

 **Apex**  
Radio Systems Ltd.

# SAFE STADIUMS

KEEP UP WITH THE SPEED OF TECHNOLOGY  
ON ONE UNIFIED PLATFORM

# CREATING SAFE STADIUMS

From sporting events to live concerts, the world's stadiums host millions of visitors each and every year. Creating a positive and secure visitor experience while maintaining efficient, streamlined operations is the promise stadiums make. But delivering on this promise is only achievable with a foundation of safety. Everything starts with safety. It's the centre that holds stadium operations together.

At Motorola Solutions, we've created the first and only end-to-end enterprise technology ecosystem that unifies voice, video, data and analytics in a single platform. Our Safe Stadiums solution provides you with the foundation of safety you need by addressing the unique challenges of your facility.

We've also reimagined how the technologies used to help keep stadiums safe, can do even more — driving efficiencies, improving productivity and providing better outcomes. Because safety, efficiency and productivity are deeply interconnected. With the right technologies, you can be faster, smarter, more focused and resilient — better at everything you do.

Because when technologies communicate and learn from each other, safety and performance improve across your entire enterprise. Intelligence advances outwards, giving you eyes and ears where you've never had them before. Information flows where it's needed — from cameras, to radios, to smart devices, to security operation centres — and what you need to know is made clear. People collaborate in more personalised and productive ways, using any network or device they want. Fairness and accuracy replace biases and blindspots. Resiliency increases and decisions improve.

Our Safe Stadiums technologies come together to efficiently keep staff and visitors secure — providing the certainty of safety you need to deliver on your promise. Reassuring everyone who comes through your gates that potential threats can be identified and resolved before they

escalate. Ensuring that if the unthinkable happens, there are plans and technology in place to respond as quickly as possible. So you can remain focused on what's most important — efficiently bringing fans through the turnstiles, continually stocking food outlets with favourites and, ultimately, creating a lively and entertaining atmosphere for visitors.



## EXAMPLE USE CASE: BANNED INDIVIDUAL

Our Safe Stadiums integrated ecosystem allows you to address everyday concerns as well as emerging situations through the four pillars — Detect, Analyse, Communicate and Respond. We will explore how these pillars work together to address your stadium's challenges through the example of enforcing a banned individual.



# DETECT

Overseeing a large, multifaceted stadium facility can be a challenge. From managing and streamlining guest and staff entries to ensuring the safety of widespread perimeters, detection plays a critical role in minimising potential threats at your facility.

Integrated video security utilises artificial intelligence to enhance visibility across your facility, monitor critical areas in one view and recognise potential security gaps. Access control provides entry management for guests and staff, access point detection and push notifications for door alarm activities — making it easy to monitor widespread perimeters. Anonymous tip submissions provide insights into the unseen and enables fans to report suspicious packages, items and behaviours. Radio alerts ensure all personnel — across multiple teams — are informed of critical information simultaneously.

## DETECTION OUTCOMES

### Secure Sensitive Areas of Your Stadium

Monitor and secure restricted areas using access control and video analytics technologies. Receive instant notifications via text message and text-to-voice alerts on radios, smartphones or any device of choice of an access point breach.

### Maintain Proactive Awareness for Suspicious Activity

Enhance visibility across vast areas like parking lots and corridors using our wide-view cameras combined with video analytics technology allowing for a holistic view for any unusual movement such as vehicles driving the wrong direction or loitering.

### Be Alerted on Who is Coming In and Out of Your Stadium

Monitor points of entry to your stadium using Licence Plate Recognition analytics and Watch List Alerting. Whether a banned individual enters your parking lot or a VIP Guest has arrived on your property, automatically notify all relevant staff to engage the appropriate response plan. Expand on the power of video security analytics by including facial recognition technology.

### Get Visibility into Escalating Situations

Protect your staff members and guests from interactions with disruptive individuals. Body-worn cameras automatically begin capturing footage of escalated situations when the duress button on radios are pressed. Alerts are consequently sent to appropriate staff directly on their radios and in the security operations centre when body-worn cameras are activated.



## FEATURED TECHNOLOGY

### ACCESS CONTROL

Manage access to different buildings or restricted areas within your facilities using a role-based system with instant detection of individuals at access points and camera-based verifications.

### VIDEO SECURITY AND ANALYTICS

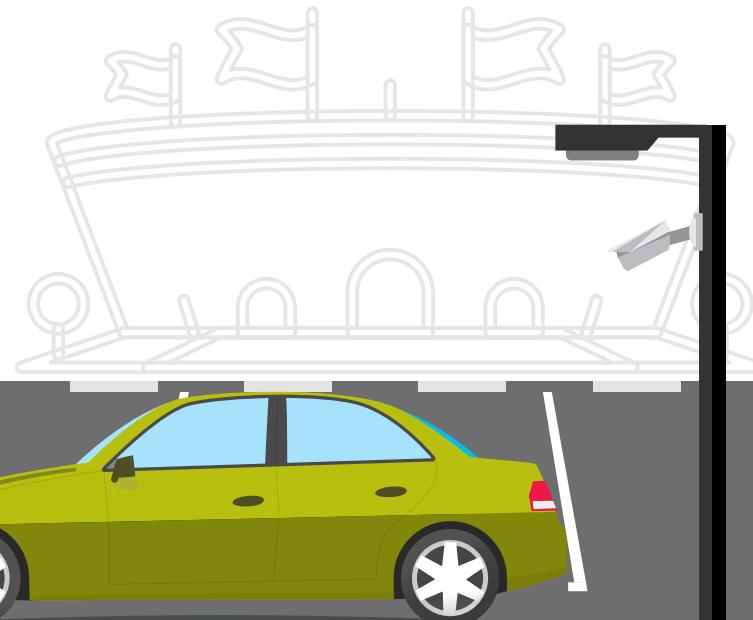
Deter threats and enhance visibility across your facilities with specialised wide-view cameras for every location — such as fisheye cameras for secure areas, multi-sensor for corridors, pan-tilt-zoom for parking lots and ballrooms. Ensure situational awareness is always maintained by sending instant notifications of these analytics to the appropriate individuals on the device of their choice from radios to smartphones and more.

## BANNED INDIVIDUAL - DETECT



### Known Person Identified

Using an existing database, an automatic licence plate reader recognises a banned individual's vehicle entering the stadium parking lot and alerts stadium operations.



# ANALYSE

You're responsible for monitoring a large and diverse facility filled with secure areas, public areas, critical equipment and thousands of guests and employees. Scouring through collected data in order to recognise concerns across your stadium is a demanding and time-consuming task. Technology can help simplify that process.

Appearance searches quickly and seamlessly explore video footage to track persons of interest moving through your facility and recognise flagged individuals. Unusual motion detection reveals atypical behaviors and events which need investigating. Integrated access control and identity search provides real-time insights into personnel movements, making it easy to find a person's last known location in your stadium.

Ultimately, these solutions and insights are crucial to cutting through the noise and highlighting important events and points of interest so that you can quickly find what you are looking for and make informed decisions to take action.

## ANALYTIC OUTCOMES

### Track and Locate Persons of Interest in Real-time

Pin-point the location of specific individuals within your property to respond to or prevent potential incidents. Using video analytics, security teams can respond quicker to a reported lost child by using their appearance, shoes or clothing as an identifying characteristic to begin an area search. Prevent potential escalations by automatically populating relevant cameras if an intruder is identified on your facility and monitor their path of trajectory.

### Actively Monitor the Location of Response Resources

Determine your closest resources to an incident for the most efficient and timely response. Whether a concession stands need assistance, a fan spilled a drink, security personnel are needed, or an emergency is taking place, leveraging the mapping of the real-time GPS location of devices and people can enable your staff to increase their efficiency and promptly respond to any situation at hand.

### Quickly Evaluate a Situation on a Single View

Save seconds and have the full story by populating all nearby cameras to an incident with a single click and view all available intelligence aggregated onto a single screen.



## FEATURED TECHNOLOGY

### APPEARANCE SEARCH

Find who you are looking for faster with video search that can be initiated by selecting specific physical descriptions such as hair or clothing colour, gender and age category or vehicle type and colour.

### VIDEO ANALYTICS

Use advanced pattern-based analytics and teach-by-example technology to proactively monitor and accurately recognise movements of people and vehicles while ignoring motion not relevant to a scene that could pose a safety or operational risk. Additional rules-based analytics help ensure your security staff don't miss important events that need further investigation, such as loitering.

## BANNED INDIVIDUAL - ANALYSE



### Movement Tracked

Using appearance recognition from a watchlist, the individual is confirmed as being banned and using appearance search their movements are automatically tracked as they approach the stadium.



# COMMUNICATE

Whether it's a typical day of funneling hundreds of guests through the turnstiles, or an emergency situation, clear and timely communication is key to creating a safe and connected stadium experience.

Broadband push-to-x extends your reach by enabling voice and data information to be shared across devices and teams. Two-way radio communications instantly and reliably connect security, administration, staff, third party personnel and local first responders. Dispatch software makes it easy to directly share data across devices and teams, including first responders.

Connectivity — across devices and networks — is an important part of ensuring you and your entire team are aware and informed at all times.

## COMMUNICATION OUTCOMES

### Instantly Share Information Across Multiple Teams or Venues

Distribute intelligence across multiple devices and facilities for seamless communication no matter where your staff is located. Images of unwanted or disruptive individuals can be shared with a press of a button for an efficient response from your security teams and operations to intercept potential escalations.

### Broadcast Mass Notification Alerts To Relevant Staff

Notify and enable your staff at a moment's notice with automated alerts sent via text, email or voice message from laptops or smartphones. Send images of a lost child or disruptive guest across multiple groups and teams to provide your staff with the most up to date information.

### Manage and Access All Communications From a Single View

Simplify and standardise your dispatch process with streamlined dashboard views and instant communication across multiple devices from a single desktop application.

### Transmit Multi-Media Intelligence

Live video and intelligence can be shared with security staff monitoring building entrances to intercept individuals and prevent them from entering the stadium. Share images of disruptive or unwanted individuals across your staff and security teams to ensure a seamless share of relevant information.



## FEATURED TECHNOLOGY

### MOTOTRBO

MOTOTRBO Ion brings together renowned PTT performance, an open app ecosystem on the Android platform, and access to the Motorola Solutions technology ecosystem — including video security and analytics, and best-in-class network security. With Ion, teams stay connected across networks and devices. Business-critical data and workflows are unified and simplified. And the capabilities your workforce needs to be at their best are always on. An intuitive touchscreen lets you view high resolution images, and an integrated camera lets you send — even stream — photos and videos.

### WAVE PTX/TLK

Share voice and data without boundaries, enabling smart phones with push-to-talk capabilities enhanced with the ability to push details via text, photo, video or file attachment to smartphones, tablets, laptops and even land-lines.

## BANNED INDIVIDUAL - COMMUNICATE



### Notification Communicated

The nearest entry gate security personnel are notified with an alert and an image of the individual.



# RESPOND

Being ready and aware is critical to ensuring your team can quickly respond to problems before they escalate. Emergency connectivity ensures instant response of first responders to your stadium.

Incident management streamlines the logging of incident reports, aggregates information feeds to unify data and evidence storage, and makes it easy to share multimedia with other personnel. Mass notification capabilities make it easy to notify and share information with guests and personnel at a moment's notice.

Because enabling rapid response and documenting past incidents can be the key to preventing incidents from becoming tragedies.

## RESPONSE OUTCOMES

### Dynamic Communication with Public Safety

Optimise response times to situations and incidents that require additional emergency response resources. Proactively engage directly with public safety using radio networks to share situational and location intelligence updates before their arrival on scene. Compile and deliver video footage to law enforcement teams for future incident prevention.

### Provide Critical Incident Insights

Provide critical incident insights and eyes-on-the-scene with real-time video from your security operations centre to staff in the field. Updates are communicated directly with relevant staff and teams on their devices of choice to ensure the safety of your teams while they respond to everyday incidents and emergency situations.

### Document Incidents for Future Prevention

Save time with automatic population of incident data for efficient reporting and documentation. All relevant information and video captured is securely and seamlessly stored and documented and can be shared with security teams, sister facilities or public safety.

### Increase Workforce Efficiency

Achieve a seamless flow of communication and information across teams with two-way radio communications. Equipping your staff with the appropriate tools for an efficient response is critical and now attainable with the integration of voice, video and software on one platform.



## FEATURED TECHNOLOGY

### CONTROL ROOM SOLUTIONS

Integrating powerful voice and data communications with advanced fleet control and dispatch functionalities, Control Room Solutions maximise your operational effectiveness.

Control room personnel are equipped with tools that allow them to organise and deliver tasks more efficiently, communicate better with teams in the field and make faster, sounder decisions when incidents happen.

### CRITICAL CONNECT

Easily enable and disable dynamic, seamless and secure temporary communication links between networks with interoperability between response teams and on-site staff, and even with local first responders.

## BANNED INDIVIDUAL - RESPONSE



### Incident Managed and Reported

Stadium operations monitors the situation via video and the security personnel prevent the individual from entering. An incident report is automatically logged.



# AUTOMATE WORKFLOWS. MANAGE OPERATIONS. CONFIGURE YOUR TECHNOLOGY.

## Get It Done With Orchestrate.

Time is precious. And managing the communications, video and software that comprise your security and operations technology ecosystem can be a time-consuming, challenging task. What if there was a way for you to focus on what matters most, and automate the rest? That's why we created Orchestrate. It's a simple, user-friendly and cloud-based interface tool that gives administrators the ability to configure and automate workflows that control their integrated security technology ecosystem. These intelligent, automated workflows also enhance efficiency as well as improve response times, effectiveness and overall personnel safety. It equips your security network operations teams with the capabilities they need to detect triggers across a number of installed devices and quickly take actions to reduce risk of breaches and downtime by automatically alerting the appropriate teams and executing the proper procedure. Orchestrate makes managing your day-to-day operations effortless by providing a self-service workflow management tool at your fingertips.

Our business workflow automation solution, Orchestrate, is designed for your unique ecosystem. It allows you to integrate individual processes, fully manage and optimise workflows, and deliver a consistent response every time. The number and complexity of workflows can scale to meet the needs of your operations. Because Orchestrate is a secure, cloud-based, cross-technology platform, users can access and build customised solutions from anywhere, at any time.

## KEY FEATURES

### Complex Workflows, Simplified.

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## AUTOMATION

### Let Intelligent Workflows Do the Work.

Your organisation is being continually challenged to do more with less — and to do it quickly, efficiently and cost-effectively — all while protecting people's safety. When you are able to immediately recognise and respond to threats and unexpected events, you are able to focus on the work at hand. Ensuring nothing is missed. From simple machine-assisted decision-making to complex workgroup action and event management, Orchestrate empowers you to address the unique challenges of your operation, automatically. All so you can keep your focus on what matters most.

## EMPOWER YOUR OPERATIONS

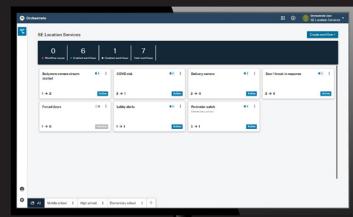
### Address the unique challenges of your operation, automatically.



## HOW ORCHESTRATE WORKS

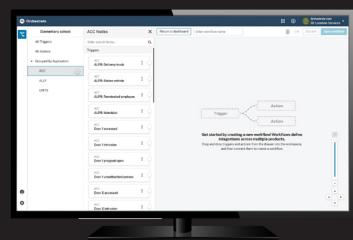
Self-service workflow creation.

Administrators can create rule-based, automated workflows between their technology sleeves to enhance efficiency as well as improve response times, effectiveness and overall safety.



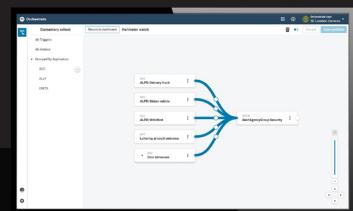
### EXPLORE

Easily scale operational views for effective workflow management



### DEFINE

Establish business logic with a simple-to-use, graphical interface



### CONFIGURE

Create automated workflows for machine-assisted decision-making



### ACTIVATE

Leverage analytics to trigger conditional logic, thereby alerting and informing relevant teams



## TAKING STADIUM SAFETY TO THE NEXT LEVEL

It's time to reimagine what safety technology can do for your stadium — driving efficiencies among the ongoing labour shortages, bolstering performance and helping you deliver on your promise of an efficient, safe and enjoyable experience for all guests.

Motorola Solutions' Safe Stadiums integrated technology ecosystem unifies mission-critical technologies to improve safety across your facility while also creating better outcomes in your day-to-day operations.

By bringing together the technologies and solutions you need to detect, analyse, communicate and respond, we're ensuring your stadium is better equipped to prevent threats and enable modern incident and operational management by leveraging technology as a force multiplier. Video technologies that capture the present, survey large crowds and see the unseen. Advanced software that centralises command amid chaos. Mission-critical communications that connect across devices and networks — so your team is always informed. All amplified by integrated analytics that quickly identifies points of interest across widespread areas. All integrated to empower you to keep your finger on the pulse of your venue — keeping visitors, staff and vendors safe and secure.

# 96%

of hospitality facilities are experiencing staffing shortages\*

Learn more at:  
[motorolasolutions.com/safestadiums](http://motorolasolutions.com/safestadiums)

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Availability is subject to individual country law and regulations. All specifications shown are typical unless otherwise stated and are subject to change without notice. Camera footage is for illustrative purposes only.

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