SAFETY
REIMAGINED

SAFE
UTILITIES

MODERNIZING FOR THE DIGITAL GRID

MOTOROLA SOLUTIONS

CREATING SAFE UTILITIES

Today, modern utilities are facing ever-increasing demands for reliable, secure service delivery. And the utility business model is fundamentally more complex today than it was even five years ago. Technologies – such as electric vehicles, roof-top solar panels, and smart meters – are becoming more and more prevalent and increasing power consumption. As a result, energy storage is playing an increasingly critical role in balancing load demands. In addition, grid modernization is required to improve the nation's electrical grid infrastructure to make it more flexible, reliable, resilient, secure and sustainable. On top of this is the ongoing mandate to ensure continuation of service and quick restoration after an outage in order to produce a high level of customer satisfaction. All of this must come together to ensure utilities are able to generate, transmit and deliver energy to customers in an environment built on a foundation of safety and efficiency for employees, visitors, properties, assets and the community.

At Motorola Solutions, we've created the first and only end-to-end technology ecosystem that unifies voice, video, data and analytics on one single platform — providing you with the foundation of safety for your operations that you need to stay focused on the job. Assuring managers and employees that when situations arise there is technology in place to resolve issues as quickly as possible to prevent them from escalating beyond control.

We've reimagined how the technologies used to help keep your facility safe, can do even more — minimize downtime, improve efficiency and productivity and generate better outcomes. Our technology ecosystem allows data and intelligence to advance outwards, giving you eyes and ears where you've never had them before. Information can move where and when it's needed — from cameras, to radios, to smart devices and device sensors, alarms and productivity tools, to security and operations centers both on-site and in remote locations — and provides meaningful and actionable workflows. Technologies integrate seamlessly across diverse areas and functions to provide efficiency and visibility across zones.

Our Safe Utilities technologies come together to keep your facility safe and operations efficient — delivering the certainty of safety you need to deliver on your promise of keeping services up and running.

LAND MOBILE RADIO COMMUNICATIONS

SAFE UTILITIES

VIDEO SECURITY & ACCESS CONTROL

COMMAND CENTER SOFTWARE

MANAGED & SUPPORT SERVICES

DETECT   ANALYZE   COMMUNICATE   RESPOND

EXAMPLE USE CASE: COPPER THEFT

Our Safe Utilities integrated ecosystem allows you to address everyday concerns as well as emerging situations through the four pillars — Detect, Analyze, Communicate and Respond.

We will explore how these pillars work together to address your utility's challenges through the example of copper theft.

DETECT

Overseeing the widespread and diverse types of critical infrastructure assets throughout your facilities can be a challenge. From controlling multiple points of entry, monitoring worker safety, and securing and monitoring key areas and equipment, detection plays a critical role in improving situational awareness and decreasing response times to potential issues and operational problems. Integrated video security uses artificial intelligence to create high visibility across your facilities and connected sites all in one view. Access control provides entry management, immediate lockdown capabilities and push notifications to devices. Emergency alerts ensure all personnel — across multiple teams and locations — are automatically informed of critical information simultaneously.

All of this comes together to provide you with better insights — so you always know what is happening at your site.

DETECTION OUTCOMES

Secure Sensitive Areas of Your Facility

Monitor and secure different buildings, equipment or 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 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 individuals loitering.

Be Alerted on Who is Coming In and Out of Your Facility

Monitor points of entry and exit to your facility using License Plate Recognition analytics and Watch List Alerting. Whether a banned individual enters your parking lot or an unknown individual enters a restricted area, 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

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. Alerts are sent to the appropriate staff directly on their radios so the appropriate resources can be dispatched to address the situation.
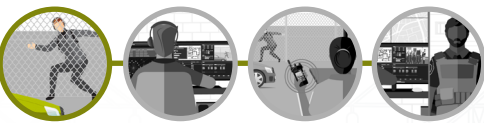
FEATURED TECHNOLOGY

Access Control

Manage access to different buildings, equipment 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 specialized wide-view cameras for every location — such as fisheye cameras for secure areas, multi-sensor for corridors, pan-tilt-zoom for parking lots and wide-open areas. 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.

COPPER THEFT - DETECT

INTRUSION DETECTED AT REMOTE SUBSTATION

An intruder is detected getting out of a vehicle and jumping the fence of a remote substation. Security is directly notified and live video is transmitted over Private LTE to the control center.

ANALYZE

You're responsible for monitoring large facilities and widely-dispersed sites filled with workers, secure areas, vast spaces, critical materials and equipment. Identifying unwanted individuals, tracking persons of interest, recognizing hazardous situations and identifying falls and downed workers in this environment is a demanding task. Appearance Search capabilities quickly and seamlessly explore video footage to identify persons or vehicles of interest across your facilities or parking lots. Unusual Motion and Activity Detection highlights out-of- the-ordinary behavior that may need to be addressed. The Focus of Attention interface quickly brings your attention to areas of video security interest, increasing efficiency and improving response time when evaluating a situation.

Ultimately, these solutions and insights are crucial to cutting through the noise, proactively locating points of interest and recognizing which events are important — so you can have eyes on the scene to evaluate and make an informed decision to take action.

ANALYTIC SOLUTIONS

Track and Locate Persons of Interest in Real-time

Pin-point the location of specific individuals within your facility to respond to or prevent potential incidents. Using video analytics, security teams can respond quicker to a suspicious individual 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 the location of the closest security officers to an incident for the most efficient and timely response.Using mapping and real-time GPS location of devices and people can enable your team to increase their efficiency and promptly respond to any situation at hand.

Quickly Evaluate a Situation on a Single View

Save seconds and see a holistic view of the situation by populating all nearby cameras to an incident with a single click. Easily identify where action is required 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 color, gender and age category, or vehicle type and color.

CommandCentral Aware Enterprise

Provide critical incident insights and eyes-on-the-scene with real-time video, resource GPS location information, streamlined incident intelligence and direct communication connections within your facility and with response teams.

COPPER THEFT - DETECT

APPEARANCE TRACKED

Situational awareness maintained as intruder's appearance is automatically tracked across multiple cameras on and around the substation. Tracking continues even if they appear at another facility.

COMMUNICATE

Regardless of your role, clear and timely communication is key to keeping your teams connected and informed. Radio communications instantly and reliably connect security, response teams, field workers, management and local first responders when needed. Broadband push-to-talk and multimedia capabilities extend your reach by enabling voice and data information to be shared across devices to those in other locations or remote areas. Dispatch software and mass notification capabilities make it easy to notify and share information across workgroups at a moment's notice.

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

COMMUNICATION SOLUTIONS

Share Information Across Multiple Teams or Locations
Distribute intelligence across multiple devices and facilities for seamless communication no matter where your staff is located. Images of suspicious individuals can be shared with a press of a button for an efficient response from your security teams and operations to intercept and prevent 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 suspicious individual or vehicle 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 standardize 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 and secure areas to intercept individuals and prevent them from entering the facility. Share images of suspicious individuals across your staff and security teams to ensure a seamless share of relevant information over a privately owned broadband network.
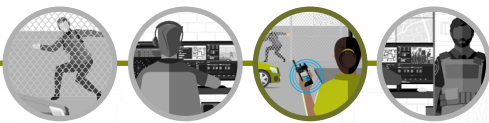
FEATURED TECHNOLOGY

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/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.

COPPER THEFT - COMMUNICATE

RESOURCES DISPATCHED
Location and appearance of intruder is determined and shared across security teams to apprehend intruder and potentially prevent theft. Security uses microphone to warn intruder they have been detected.

RESPOND

Whether it's an everyday incident or an emergency situation, your response teams and facility personnel need to communicate with each other to coordinate a response in the most efficient way possible. Being ready and aware is critical to ensuring your team can quickly respond to incidents or problems before they escalate — maintaining productivity and ensuring the health and safety of workers. Dynamic interoperability makes it easy to directly share data with response team personnel in real-time, enhancing situational awareness. Incident management streamlines the logging of incident reports and makes it easy to share multimedia with other personnel when needed and inform future decision-making for safety, security and operational procedures.

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

RESPONSE SOLUTIONS

Dynamic Communication with Public Safety
Optimize 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 command center 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. Enable seamless coordination and connectivity — regardless of the situation — with interoperability between security personnel and local law enforcement to ensure a rapid response.

FEATURED TECHNOLOGY

ALLY
Streamline end-to-end incident and records management with customizable record fields and multimedia attachments, all accessible from web-enabled devices.

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

COPPER THEFT - RESPOND

FIRST RESPONSE DISPATCHED
Local police directly informed with video for immediate response. Incident is logged with pre-populated fields and relevant data to facilitate post investigation and prosecution.

POWERING THE CONNECTION

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

KEY FEATURES
Complex Workflows, Simplified.

Our business workflow automation solution, Orchestrate, is designed for your unique ecosystem. It allows you to integrate individual processes, fully manage and optimize 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 customized solutions from anywhere, at any time.

AUTOMATION
Let Intelligent Workflows Do the Work.

Your organization 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 recognize 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.

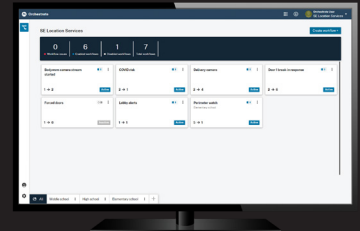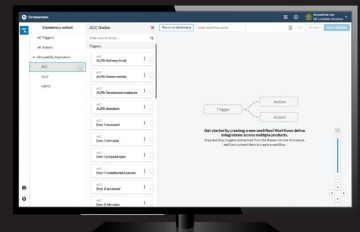| AUTOMATE WORKFLOWS	IDENTIFY BOTTLENECKS	BOOST PRODUCTIVITY	INCREASE FOCUS	IMPROVE TRANSPARENCY
Expand reach	Minimize inefficiencies	Reduce manual effort	Focus on high value activities	Track status at every stage

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.
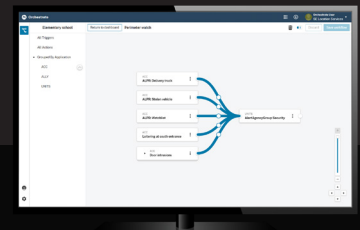

EXPLORE
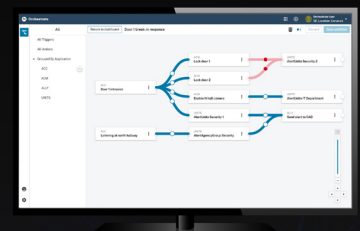Easily scale operational views for effective workflow management

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 UTILITY SAFETY TO THE NEXT LEVEL

It's time to reimagine what safety technology can do for your utilities facility — driving efficiencies, bolstering performance and helping you deliver on your promise of delivering uninterrupted service.

The Motorola Solutions Safe Utilities integrated technology ecosystem unifies mission-critical technologies to improve safety and security across your sites while also helping you and your team be smarter and more efficient. By bringing together the integrated and innovative technology you need to detect, analyze, communicate and respond, we're helping to maintain efficiency and effectiveness across the board.

By enabling modern incident and operational management, you can be sure your teams are working safer, smarter and more productively. And that when incidents happen, your teams are assured there is technology in place to resolve them as quickly as possible so they can stay focused on the job at hand.

The extreme weather events of 2021 highlighted the energy security risks that climate change is introducing, and the importance of investing in more resilient electricity grids.

*https://www.iea.org/reports/smart-grids

Learn more at:
motorolasolutions.com/safeutilities

MOTOROLA SOLUTIONS