



# CONNECTED AND PROTECTED TEAMS. ANY DEPARTMENT. ANY MISSION.

**MOTOROLA SOLUTIONS MILITARY BUYING GUIDE**



## PURPOSE-BUILT TECHNOLOGY FOR MILITARY AND NATIONAL DEFENCE AGENCIES

Effective situational intelligence doesn't happen by chance. It requires the deep integration of voice, video, and data across your agencies' systems.

Motorola Solutions can help your teams keep pace with the rapid changes in mission critical technology ecosystems. Our technology breaks down communication and operational technology barriers to ensure timely information is transmitted to the right person, at the right time, in the right place. With breakthrough communications, video and data solutions ideal for solving today's installation security and tactical operations challenges, we help you identify threats and access critical information faster, for better outcomes.

Our seamless technology spans secure mobility and tactical communications, force protection on-base and in the field, and unified communications with interoperable land mobile radio at its core.

With a diverse portfolio of communications, video, and information management systems that meet various high-level certifications including JITC, NIAP, CSfC, and FIPS, our solutions are aligned to programs central to your operations.



# MOTOROLA SOLUTIONS PRODUCTS AND SERVICES FOR THE MILITARY

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# CONVERGED INFORMATION SECURITY MANAGEMENT

## FORCE PROTECT: THE POWER OF CONVERGED SECURITY AND INFORMATION MANAGEMENT

Force Protect is a converged security and information management system that delivers a common operating picture of a military installation's resources and personnel. The installation-wide platform integrates multiple systems to enable real-time voice, video, and data collaboration, allowing commanders, operation centres and first responders to unify workflows and act as one.

When voice, video, and data systems come together in one seamless installation-wide platform, you unlock the power of true integration and unleash new value from existing systems.

## FORCE PROTECT ECOSYSTEM

Force Protect tightly integrates individual base defence systems. When a security event is detected, it automatically triggers relevant actions for each system in the area. The result is a highly intelligent and versatile solution, more powerful than each individual part.

**Video Management Systems:** Integrate real-time video analytics from any source: fixed, body-worn, or aerial cameras. Conduct advanced searches using key descriptions of an object or person and make correlations across all video inputs.

**SCADA Systems:** Linked SCADA systems trigger events in other security and information management systems. Plus, they gain access to infrastructure controls when security events are triggered in the area. Inputs include RTUs, programmable controllers, communications infrastructure, and more.

**Alarm Systems:** Any 3rd party linked alarm system and control panel trigger other systems in the area when an alarm has been sounded. Operators can manually trigger system alarms or automate the process using an advanced rules engine for standard operating procedures in pre-defined situations.

**Surveillance Systems:** Integrate base surveillance systems into our Force Protect to provide a common operating picture to detect and locate threats quickly.

**Access Control Systems:** Linked access control systems alert operators to unauthorized access attempts. Using an advanced rules engine, they immediately and automatically activate other systems around the access point to provide operators with additional relevant data.

**Computer and IT Systems:** Integrate all physical and virtual IT systems to facilitate rapid access to information across infrastructure and device ecosystems including IT networks, network storage, and computer processing and security layers.

**Communications Systems:** Integrate all communications networks, applications, and devices to visualize resources and personnel in a common operating picture and disseminate information to teams in real-time.





# COMMUNICATIONS PRODUCTS

## COMMAND POST COMMUNICATIONS CONSOLE

The Motorola Solutions Military Command Post suite is a fully integrated software platform to customize and enhance the way your team handles real-time military-grade communications. It's an ideal SCIF communications solution for both base installations and forward operating bases. Now, you can get the features you need to command operations without the burden of frequent and costly management requirements. The Command Post Communications Console includes:

## WAVE PTX

WAVE PTX is a flexible, multi-tenanted communications service that extends the reach of mission critical radio systems and provides interoperable voice and multimedia communications.

A subscription service based on 3rd Generation Partnership Project (3GPP) Mission Critical Push-To-Talk (MCPTT) standards, WAVE PTX is hosted in geo-redundant Azure cloud or on-premises and customers can choose the carrier network provider that best suits their needs.

With WAVE PTX you can take your communications further by communicating across any network with any device, also allowing you to share voice, video and text securely at the push of a button.

# LAND MOBILE RADIO (LMR) SYSTEMS & DEVICES

## RADIO SYSTEMS AND SUSTAINMENT SERVICES

When lives matter and a coordinated response is critical, it's not just about having the right technology. It's about achieving peak performance and reducing risk. You need reliable coverage and connectivity. That's why Motorola Solutions Land Mobile Radio systems are designed for extreme reliability in challenging environments and have been deployed for mission-critical communications on installations across the world. We also provide the expertise to deliver a full range of network and system sustainment services that offload risk, cost and management responsibilities. With our services, you can be assured of optimal system performance and a sharper focus on your mission.

## OVER THE AIR PROGRAMMING

When your personnel are in the field, updating their radios with a new code plug configuration or making a modification to an existing one can be time-consuming and labour intensive. In fact, locating and reprogramming radios takes them away from their mission and can cost your unit thousands of unproductive man-hours. We listened to these concerns and developed Over The Air Programming (OTAP) that streamlines the process so Motorola two-way radios can be accessed and updated remotely. Now your personnel can enjoy all the advantages of two-way radio communications without lost time or logistical challenges.

## OVER THE AIR REKEYING

Over the Air Rekeying (OTAR)<sup>1</sup> sends encryption key updates to radios over the air, so users don't have to bring their radios in for manual rekeying, saving time and protecting productivity. Solve the logistical problem of maintaining secure wireless communications and eliminate the burden of manually rekeying your radios on a regular basis. Our OTAR application enables key distribution and key management to be conducted securely over-the-air.



# APX SERIES P25 TWO-WAY RADIOS



SRX 2200



APX 8000H  
SRX Package

## TACTICAL SRX 2200

In theatre, don't let your command be muddled by yelling or unreliable intra-squad radios. Lightweight, secure, rugged, noise cancelling – the SRX 2200 is battle-proven and purpose-built for smarter, safer missions wherever your team operates.

The single-band SRX 2200 has delivered legendary APX ruggedness and reliability without compromising on the form factor or features required for routine missions and the most dangerous adversaries. These life-saving radios provide greater coverage, improve voice communications within squads and maintain the overall safety of our military personnel.

## APX 8000H

Start with ultra-loud speakers and noise cancellation for crystal clear clarity. Add government-grade encryption. Then, package it all in a highly ergonomic and rugged design. In the hands of all security and military personnel, the APX single-band or all-band two-way digital portable radio devices maximize resources. Our APX 8000H, is all-band with Wi-Fi access and certified to Div1 HazLoc standards.

For more information: [MotorolaSolutions.com/APX](https://MotorolaSolutions.com/APX)



## DVRS: EXTENDED RADIO COVERAGE

### Installation Security

Whether during an emergency or as part of your routine rounds, sometimes you need to go where RF coverage is challenged or non-existent. Don't let infrastructure limitations stand between you and a successful outcome. The solution is Motorola's Futurecom DVRS — whether you need to install clear, uninterrupted radio communications coverage in-vehicle, via fixed mount or for transportable operation. With DVRS, your LMR-devices stay LMR-connected.

### Tactical Operations

It's inevitable that missions will eventually take you beyond reliable LMR coverage areas. But operational success requires uninterrupted audio over your network. DVRS keeps your teams connected and expands two-way portable radio communications with secure end-to-end encryption everywhere from command posts to danger zones. Extend your tactical edge and stay connected to your team.

For more information: [MotorolaSolutions.com/APX](https://www.MotorolaSolutions.com/APX)



# BROADBAND LTE SYSTEMS AND DEVICES

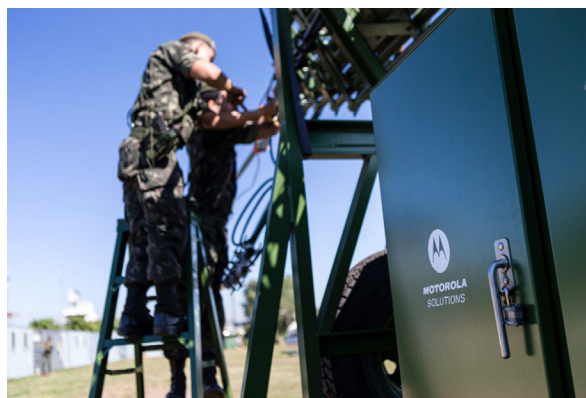
## LXN: DELIVER REAL-TIME BROADBAND INFORMATION ANYWHERE. ANYTIME.

### Installation Security

Your operations demand continuous high-speed broadband coverage, yet traditional cell sites can't always reach everywhere you need to be. Weighing only 5kg and with activation timeframes of less than 5 minutes from power on, the LXN 505 LTE Ultra-Portable Infrastructure is our smallest and lightest full power broadband network.

### Tactical Operations

Covering a spectrum of use cases from backpack, to in-vehicle, to in-building and fixed site, with LXN 505 you bring the network with you to quickly deliver the secure LTE coverage and capacity you need. Anywhere, anytime.



## LEX SECURE MOBILE ENVIRONMENT: DELIVERING A COMMON OPERATING PICTURE IN THE PALM OF YOUR HAND.

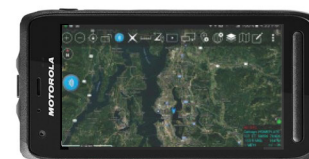
CSFC and NIAP certified, LEX LTE mission-critical handhelds offer a real-time operational view of what's happening now and help you be ready for what happens next.

### Installation Security

Protecting and leading an installation requires having next generation communications capabilities at your fingertips 24/7/365 – from anywhere in the world. With advanced collaboration software, GPS tracking, and data, video and voice capabilities, you can rely on rugged LEX LTE mission-critical handhelds to deliver.

### Tactical Operations

Special operations require your entire team's intelligence, especially in urban, complex environments requiring split-second decisions. Rugged LEX LTE handhelds exist for those types of missions. Think radio functionality in a cellphone form factor with the capability to gather and collate real-time critical information. The result is immediacy over a continuous connection without switching devices.



LEX L11 Mission-Critical Secure Broadband Device, designed with the National Guard and First Responders in mind.





# CYBERSECURITY SERVICES

## CYBERSECURITY PATCHING

All software is vulnerable. Whether the software sits on your laptop, runs on a server, resides on a chip within a firewall, or is an app on your phone, it needs to periodically be updated and patched to remain secure, function properly and protect you from outside cyberattacks. Mitigate the cybersecurity risk to your mission critical technology ecosystem with timely security patches. Our security patching includes pre-testing, validation and anti-malware software updates in line with the NIST framework and industry standards. To identify the need or gaps around system patches, all hardware and software assets, network and communication flows and dependencies are identified, mapped, classified and managed according to criticality. As new patching needs arise they are tested and deployed within the network.

## SECURITY MONITORING

Monitor your IT system 24/7 with experienced, highly trained and certified security professionals at Motorola Solutions' Security Operations Center (SOC). Using automation and analytics to process and handle traffic bursts of thousands of messages in one second, our security systems can pin-point substantiated threats and alleviate false positives and omissions. Programmed with auto-learning algorithms, our SOC will become more informed over time from your system log data and alerts. From this, actionable tickets can be assigned, investigated and resolved.

## RISK ASSESSMENT AND CONSULTING SERVICES

Identify vulnerabilities and develop a robust cybersecurity strategy with a security risk assessment. Our Risk Assessment and Consulting Services provide a structured approach for identifying, assessing and managing infrastructure and software cyber risks. We start with a series of interviews, surveys and workshops to develop a thorough understanding of your requirements and current environment. Then we use a time-tested scorecard methodology that measures your objectives against your cyber resilience readiness, with a focus on identifying and defining specific risk elements unique to your environment. We deliver a readiness dashboard that addresses vulnerabilities, business process and skills alignment based on your technology attributes, security architecture and governance policies.

For more information on Motorola Solutions cybersecurity services:

[MotorolaSolutions.com/Cybersecurity](https://MotorolaSolutions.com/Cybersecurity)

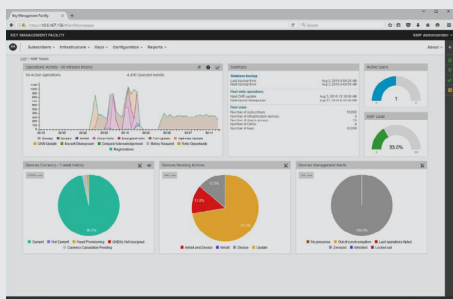




CAC/PIV



CRYPTR MICRO DEVICE ENCRYPTION



KEY MANAGEMENT FACILITY (KMF)



KEY VARIABLE LOADER (KVL)

# CYBERSECURITY PRODUCTS

Secure your communication system and assure the information it disseminates with proactive threat detection, real-time response and correction.

## CAC/PIV

CAC/PIV adds security flexibility to your ASTRO® 25 radio system, providing secure data access to computers at multiple classification levels. Built-in functionality blocks access to the infrastructure when the user employs an invalid smart card or smart card not provisioned for access to a particular system. A Centralized Active Directory tracks CAC/PIV authorization attempts, provides for efficient monitoring of new equipment, certificate expiry and log in failures. CAC/PIV Authentication is available on ASTRO 25 radio systems with release 7.17.3 or later, enabling smart card authentication for the following ASTRO 25 components: Windows (physical/virtual), RHEL (virtual), Hypervisor (ESXi virtual servers) and Embedded OS platform based network devices (Routers, Firewalls, Switches, Site Products etc.). Installation and integration of the CAC/PIV solution components is semi-automated and meets LCA requirements. Plus, downtime is minimal during upgrades and expansion.

## CRYPTR MICRO MOBILE DEVICE ENCRYPTION

Protecting sensitive data on commercial mobile devices is a challenge in any environment, but you can't risk settling for anything less than FIPS 140-2 Level 3 and NSA Suite B compliant standards. CRYPTR micro's reliable authentication and encryption capabilities maximize flexibility and are easy to use in sensitive operations across a variety of mobile devices.

## KEY MANAGEMENT FACILITY (KMF)

The Key Management Facility<sup>2</sup> (KMF) provides a robust and feature rich platform for effectively managing secure interoperable communications across all of your devices from a single centralized platform. The KMF is a flexible and secure system which allows you to efficiently manage encryption keys across your large fleet of communication devices. Furthermore, the KMF's web based client allows you to perform key operations via the interactive and easy to use web based interface from virtually anywhere. Whether you are operating in a P25, TETRA or broadband environment with a mixed fleet of devices, the KMF removes the inherent complexity out of administering and managing encryption keys. The KMF keeps your voice and data communications secure with encryption keys that update over-the-air without the delays, inconvenience or administrative costs of having users bring their devices into the shop for manual rekeying.

## KEY VARIABLE LOADER (KVL)

Securely and efficiently generate, transport and load encryption keys into secure communications products with the KVL 5000. The KVL 5000's easy to use, one-handed design and intuitive user interface integrates with Motorola Solutions' Key Management Facility (KMF) by provisioning radios to use Over-The-Air Rekeying (OTAR).



## UNUSUAL MOTION DETECTION AND APPEARANCE SEARCH



## AUTOMATIC NUMBER PLATE READERS

# VIDEO SECURITY SOLUTIONS

Our expansive portfolio of cameras, access control, infrastructure and management software is combined with powerful, AI-enabled analytics that take your video system from passive observer to active partner. While megapixels give you clarity, advanced video and image analytics deliver outcomes that stop an incident from turning into a catastrophe and enable you to quickly close the loop on an otherwise time-consuming investigation. This is why we have embedded our best-in-class algorithms across our technology ecosystem. They are designed to quickly identify vast amounts of objects in a scene and accurately classify them — enabling real-time event detection as well as the faster searching and identification of people and vehicles of interest.

## FIXED CAMERA NETWORKS

Our Avigilon fixed video security solutions provide our most robust analytical technology, capable of recognizing people, vehicles, faces and number plates to give unparalleled situational awareness for normal operations and during emergencies and natural disasters. With Avigilon fixed video security solutions, you can set discrete rules for alerts around specific events, including nine different types of motion detection, and set watchlists for the appearance of a particular face or vehicle number plate. You can also let AI take over and detect unusual activity for you. When an incident necessitates footage to be found and reviewed, the embedded analytics enable you to quickly conduct an appearance-based search for a person, vehicle, number plate or face based on a reference frame in a video or a description.

For more information on Avigilon, a Motorola Solutions Company: [Avigilon.com](https://www.avigilon.com)

## AUTOMATIC NUMBER PLATE READERS

Use our fixed or mobile cameras, combined with control management software, to detect vehicle number plates and take appropriate action. Create approved lists of vehicles to speed up entry to the base, or expired lists to warn of vehicles that have passed their authorization period. Configure alarms to trigger when an unknown vehicle that is not in your database is detected, then track their movements across the camera network. Our high-performing hardware, software and algorithms have been refined from years of experience and allow flexible deployment configurations so you can build a system that's right for your specific environment.





VB400



V300



IN-CAR VIDEO SYSTEM

## BODY-WORN CAMERAS

Improve the safety and accountability of your front-line operatives with body-worn video cameras that deliver valuable insight from the wearer's perspective. The presence of a bodycam often helps to calm difficult encounters for base security, military police and peace-keeping missions and can provide crucial evidence to prove professionalism if confronted by contentious allegations. Simply press the record button to capture high-quality video evidence: models are available that can live-stream over Wi-Fi or LTE to a control room for centralised command and control. Our rugged body-worn cameras offer long battery life and store recorded footage securely to prevent tampering or accidental deletion.

For more information: [MotorolaSolutions.com/BWC](https://MotorolaSolutions.com/BWC)

## IN-VEHICLE VIDEO SYSTEM

Our video systems provide users with a single solution for not only capturing valuable video footage, but also better equipping personnel with improved situational awareness. Our in-vehicle video system and V300 body-worn cameras work together seamlessly as a single system, capturing video from multiple vantage points and automatically synchronising it for playback and sharing. The WatchGuard 4RE video system has the expandability to provide a 360° view with the flexibility to automatically save and upload only from the cameras you choose.

## RADIO ALERT

Integrate Motorola Solutions P25 devices with the Avigilon Control Center (ACC) to form Radio Alert so two-way radio users can receive and respond to ACC alarms from their APX radio systems. Alarms resulting from Avigilon analytics, access control and vehicle number plate recognition watchlist match events are automatically pushed to Motorola radios in the form of text messages and text-to-voice alerts. Security personnel can acknowledge alarms directly from their radio, investigate and quickly send automated location-based intelligence, all without needing to continuously monitor activity on a computer screen.

For more Information: [Avigilon.com/Radio-Alert](https://Avigilon.com/Radio-Alert)



# ACCESS CONTROLS

## AVIGILON ACCESS CONTROL MANAGER (ACM)

The ACM™ system is a physical access control system, designed to help you focus on securing your people, property and assets, while giving you the flexibility to respond to alerts wherever you are. It seamlessly integrates with Avigilon Control Center (ACC) software to provide you with a powerful and unified security solution that helps you proactively monitor and secure your sites so you can focus on what matters most.

# ALARM SYSTEMS

## GIANT VOICE AND SIREN ALERTING

Providing early, clear and continuous communication during an emergency is critical for community well-being. Motorola Solutions' early warning smart siren solution is fully siren agnostic so you can utilize existing sirens or sirens from other vendors to provide safety to your community. Our end-to-end siren alerting capabilities enable operators and system maintenance personnel to proactively manage mass notification and emergency alert systems over a mission critical network.

# SCADA SYSTEMS

## SCADA REMOTE TERMINAL UNITS (RTU)

With costs continuing to be a major obstacle to infrastructure upgrades, technology that can create gains in efficiency and productivity can help. Improve the speed and accuracy of your operations by securely automating field processes with Motorola Solutions' MC-EDGE RTUs, a product line built on a history of MOSCAD success. Further expand your control by integrating the RTUs with your two-way radio system or a combination of almost any other network for encompassing data communication. Our solutions help you reduce operational downtime, optimize infrastructure efficiency and keep personnel out of potentially dangerous situations.





# **MOTOROLA SOLUTIONS: REIMAGINE YOUR MISSION-CRITICAL TECHNOLOGY ECOSYSTEM**

Reimagine your organization's information and communication systems with Motorola Solutions, a trusted partner of governments, public agencies and private businesses around the world. Our broad portfolio of purpose-built products and services for the military can help your team produce more valuable situational intelligence, a clearer common operating picture, and a faster, unified command structure for seamless communications on base or on deployment.





<sup>1</sup> OTAR is supported on ASTRO and TETRA systems.

<sup>2</sup> Key Management Facility is supported on ASTRO, TETRA and LTE systems.

[www.motorolasolutions.com](http://www.motorolasolutions.com)

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