

MOTOROLA CRITICAL COMMUNICATIONS SOLUTIONS



SAFER CITIES. THRIVING COMMUNITIES.



A REVOLUTIONARY MULTI-NET SOLUTION

Within the information flowing between citizens, responders and agencies is the intelligence that builds safer cities. Motorola Solutions is helping agencies collect more of it, make it actionable and securely distribute it with the world's first mission critical, multi-net operating environment.

It allows public safety professionals to securely and seamlessly leverage radio and broadband networks, private or public. It unifies the data sources and services that enable next generation mobile applications, and dynamically prioritises the information that matters most, to the people who need it most. And it's built on a flexible and migratable open architecture that's simple to manage.

Motorola's unified mission critical environment creates the firm foundation for establishing safer cities and thriving communities by...

- Unifying data sources and services that enable next generation mobile applications
- Dynamically prioritising information that matters most, to those who most need it
- Being future-ready with open architecture that's simple to manage and update



NEW FOR 2015

**LEX L10
MISSION
CRITICAL LTE
HANDHELD**

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NEW FOR 2015

**MTP3550
TETRA
PORTABLE
RADIO**

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NEW FOR 2015

**WAVE WORK GROUP
COMMUNICATIONS**

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NEW FOR 2015

**MTP8000EX SERIES
TETRA ATEX RADIOS**

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A UNIFIED MISSION CRITICAL ENVIRONMENT

Take advantage of technology convergence by combining TETRA, TEDS and LTE to create a future-proof, multi-net operating environment. Unify data, transform communications and enhance the effectiveness of your agencies.

UNIFIED DATA

ONE OPERATING VIEW unifies information sources such as location, tracking, presence, video feeds and disparate data sources to enable better collaborative actions

UNIFIED MANAGEMENT provides visibility and control across all dimensions of the unified communications network while preserving the requirements of every agency and each user

DYNAMIC INTELLIGENCE

REAL-TIME AND PREDICTIVE ANALYTICS help turn information into intelligence and target delivery to the right users for better decisions and actions

CONTEXT AWARE COMMUNICATIONS use responders' environment, incident and personal context to prioritise network resources and optimise their user interfaces for the situation

MISSION CRITICAL PERFORMANCE

ALWAYS CONNECTED to critical voice and data communications, seamlessly and securely leveraging standards-based radio and broadband, private or public, for pervasive coverage

TRUSTED SECURITY through an end-to-end security framework offering concentric rings of protection and a security-enhanced, hardened architecture to secure sensitive communications

CCW 2015 CONTENT

CRITICAL COMMUNICATIONS OVERVIEW

MSI OVERVIEW

PUBLIC SAFETY

MINERALS & ENERGY

TRANSPORT & LOGISTICS

TERMINALS & ACCESSORIES

SYSTEM & SOLUTIONS

COMMAND & CONTROL

SERVICES

TETRA: A FUTURE-PROOF TECHNOLOGY

2014 was another great year for TETRA, a technology that now represents 24 per cent of the digital technology market for LMR worldwide, and has achieved record shipment growth of 17 per cent in 2014 in the Europe, Middle East and Africa region.



To continue to meet changing user requirements and utilise the latest in technology developments, TETRA is a 'living' technology by continuing to meet the changing user requirements and by utilising the latest in technology developments. The current evolution phase includes the TETRA Enhanced Data Service (TEDS) that provides wideband high speed data communication services.

TEDS complements the existing data services provided by TETRA and meets the growing demand for increased data services to meet the operational needs of users. TEDS carriers can be reallocated as voice carriers, when increase in voice capacity is deemed more important than data capacity. TEDS uses several coding schemes - each optimised for different needs - and balances data speed versus coverage. The coding schemes change dynamically during operation to continuously optimise throughput performance. TEDS meets the needs of the majority of data applications for public safety and mission critical operators. It is available on the MTM5000 Series TETRA mobile radios from Motorola.

TETRA is designed for all professional users who need critical communications. It is used in many market sectors, from nationwide public safety networks to small, private, site-specific installations in locations such as sports arenas, shopping centres, leisure complexes and manufacturing plants. Customers in many industrial segments use Motorola TETRA solutions.

Public cellular networks come under considerable strain at a time of emergency, or even during a significant incident such as a traffic jam on a busy highway. This is why dedicated mission critical communications networks remain essential. While many public safety officers and other critical personnel utilise public mobile communications systems during their normal working day, at critical times these networks cannot offer the resilience, speed, coverage and special features that are essential for emergency response staff to do their work properly. TETRA has proved its ability to connect first responders in the high stress environments when they must perform to the limit of their ability.



PURPOSE-BUILT DEVICES AND RADIO NETWORKS

Organisations have different communications requirements based on the environments in which they work. Employees may work in high noise environments, on extended shifts, outdoors in the hot and cold, or in dangerous environments that require intrinsically safe devices.

Different use cases may require devices that can be used with gloves, include displays or operate hands-free. Supervisors may not carry a radio but need to interoperate with radio users from a smartphone. TETRA radios designed for specific use cases can meet all of these needs—from extra loud speakers, noise-cancelling microphones, glove friendly ergonomics, extreme temperature ratings, purpose built accessories, to intrinsically safe terminals rated to ATEX standards.

Motorola tests radios using an Accelerated Lifetime Testing where we shake, bake, soak, and drop the radios to ensure reliable performance under harsh conditions.

DATA APPLICATIONS TO DRIVE EFFICIENCY AND PRODUCTIVITY

TETRA Radio systems offer secure data capabilities, including:

- Query databases for the information you need in the field
- Monitor biometric data, such as the heart rate of a firefighter
- Send text messages (and one-touch canned messaging)
- Link to email gateways, so you can send an email directly to the radio
- Coordinate work order tickets for example sending room service or cleaning services in a hotel
- Locate staff and assets (GPS -outdoor, Bluetooth -indoor)
- Set up telemetry to let your machines talk to each other
- Manage your fleet effectively and automate updates

The camera in the MTP6750 gives the users the ability to record evidence or images that cannot be tampered with and can be used in investigations.

SECURE COMMUNICATIONS

Security is a major concern for both public safety and mission critical users, from consumer data breaches to cyber attacks. With TETRA, you tightly control who can listen to your voice and data traffic. In addition, there are many security features that protect your voice and data traffic, from business level secure voice encryption to government certified end-to-end encryption with features such as over-the-air encryption key management. From communications on the battlefield to government agencies, TETRA secures the most sensitive data.

SAFETY AND RELIABILITY FEATURES

To be safe, your communications must be reliable. Your calls need to always get through. There are features built in to make sure calls are prioritised and radio traffic is load balanced. Systems include redundant backhaul links at remote radio sites to redundant system controllers and back-up power. Plus, radios always have direct mode/simplex/talkaround operation so communications can occur directly between radios.



**BEST USE OF TETRA FOR
PUBLIC SAFETY WINNER:
MOTOROLA SOLUTIONS
NATIONWIDE PUBLIC
SAFETY NETWORK IN
NORWAY - NØDNETT**

Norway's Nødnett is a TETRA-based voice and data communications network supporting emergency services in a variety of urban and rural environments. In Oslo, the digital TETRA system connects more than 600,000 calls per month. TEDS improve fieldwork and interoperation across national borders, particularly with the neighbouring Swedish TETRA network. Nødnett has more than 2,100 base stations covering Norway's 324,000 km² of land. Motorola Solutions is involved in the construction, maintenance and operations of the system, currently relied on by 25,000 public safety and rescue users.

**THE GREEN TETRA
AWARD WINNER:
MOTOROLA SOLUTIONS
UTILIZING GREEN
POWER SOLUTIONS
TO DEPLOY TETRA IN
REMOTE LOCATIONS**

With the responsibility for long-term operation and maintenance of Norway's public safety network until 2026, Motorola Solutions has focused on using sustainable solutions in order to support optimised performance over the coming years. Renewable power from solar panels has been an answer to many problems, with two main benefits being a reduction in the purchase and transport cost of fuel, and an extended life for fuel cells and diesel generators, which reduces the frequency of maintenance visits.

PUBLIC SAFETY

ENSURING OUR SAFETY AT ALL TIMES

Ensuring officer and public safety at all times and in the most stressful of situations is enabled by TETRA portable and mobile radios, which provide secure communications with excellent coverage and in-building penetration. Exceptional audio performance ensures that officers can hear and be heard in noisy environments.

The rigorous, accelerated lifetime testing process ensures that the radios will withstand extremes of environment and rough usage. Secure Bluetooth 2.1 capability in Motorola's portable radios enables officers to send information from other devices such as gun holster alert sensors, bio monitors and cameras. This Bluetooth link can also connect with computers and other terminals such as the Motorola LEX L10, mobile computers, or PDAs. The TETRA or the LTE link can then be used to access data bases or critical images or video, depending upon the security and bandwidth at that time.

OPTIMISING RESOURCES AND USE OF FUNDING

Make more informed decisions with the Motorola scalable and proven command and control solutions. Voice, data and video can be pulled into a single unified stream within the Intelligence-Led Public Safety (ILPS) solution. The major elements of the ILPS are:

- Real-time Intelligence Console (RIC) to unify video, voice and CAD
- Multi-function map
- Real-time video intelligence (RTVI)
- Computer aided dispatch (CAD)
- Automatic Personnel Location System (APLS)
- Automatic Vehicle Locator System (AVLS)

EVOLVING FOR THE FUTURE

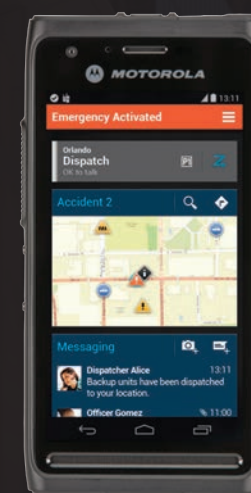
TETRA continues to offer secure and resilient voice service and data service, which is now enhanced with TEDS on the infrastructure and Motorola's mobile radios. Public or private LTE service will complement TETRA, offering broadband data service in high value areas. Motorola has introduced the MTS4L TETRA/LTE base station, which enables operators to deploy or expand TETRA service with the capability of adding LTE radios when funding, frequency and coverage plans are in place. Adding the Bluetooth link into the TETRA radios creates the opportunity to select the communications bearer depending on the situation, LTE generally being used for data and services such as high definition video, while TETRA for secure voice or lower speed data. Motorola's LEX L10 Mission Critical LTE Handheld works as a voice and data terminal. The combination of LEX L10 and TETRA radios gives the user access to the best of both communications systems in devices optimised for their needs.

PRODUCT HIGHLIGHTS



NEW FOR 2015 MTP3550 TETRA PORTABLE

The MTP3550 TETRA radio with color display and full keypad delivers high performance and dependability required for enhanced productivity and safety. Part of the refreshed MTP3000 Series portfolio that includes the MTP3100, MTP3150, MTP3200, MTP3250 and MTP3500 radios, it offers key features for public safety users that include End-to-End Encryption, Man Down Sensor and Vibrate Alert. Embedded secure Bluetooth enables connectivity with accessories and collaborative devices. Optimised for excellent audio performance and durability for use in all types of noisy and demanding situations. Features a Class 3L power output option, which increases range and in-building performance. Coupled with high receive sensitivity, the radio has the capability for maintaining communications in the most demanding situations.

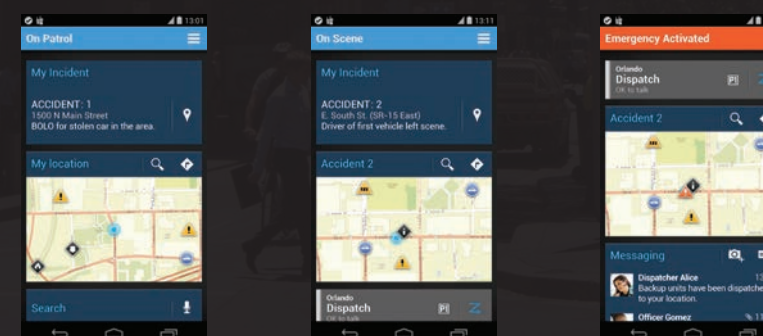


NEW FOR 2015 LEX L10 MISSION CRITICAL LTE HANDHELD

The LEX L10 delivers mission critical capabilities not available on consumer-grade smartphones. It features the Public Safety Experience (PSX) - a role-based and adaptive user experience that enhances safety and efficiency by prioritizing information to only present what is critical for the user, based on their current activity. The purpose-built handheld is ergonomically designed for one-handed operation with a no-slip grip and a 4.7-inch touch screen. It features best-in-class audio performance and a dedicated PTT button for fast voice collaboration.

PUBLIC SAFETY EXPERIENCE (PSX)

High-speed data is driving the communication landscape and penetrating every part of the world, bringing a wave of data and applications to your frontline officers. You need technology that adapts to you, your tasks and your various environments to ensure users are not overwhelmed, safety is not compromised and the maximum benefits of LTE can be realized. The Public Safety Experience (PSX) enhances devices running the Android making them more suitable for frontline public safety use. This adaptive interface, combined with powerful back-end services, automatically mirrors the activity of the user to intelligently present the right information at the right time.



ON PATROL

Your device shares your location and availability with your team so they know who to alert if someone needs backup. All of the potential threats and available resources that surround you are highlighted for maximum awareness.

ON SCENE

Customized work flow procedures are queued on your screen so you know exactly what to do. Information such as date, time and location automatically populates to speed up the process and ensure accuracy.

EMERGENCY

Your emergency status gives you the highest priority. In real-time, you will see who is responding to your emergency, where they are coming from and when they will get there so you can make informed decisions while you're waiting.



MTP6750

Capture perishable evidence that may alternatively be lost with the MTP6750 radio. Auto-generated digital fingerprint, including time, date location, user ID and meta-data ensures integrity of captured evidence.

M-Vision

M-Vision is an ideal command and control solution offering full on-screen integration with voice communications, mobile data, smart-phone devices and video. The system is highly configurable, so you can tailor it to your own specific operational needs.

Intelligence-Led Public Safety

Integrate multiple data sources and apply analytics and automation to provide actionable intelligence. From command center personnel to the responders on the street – your teams can realise enhanced strategic support so they can avert, respond and solve crimes more effectively.

WAVE Work Group Communications

WAVE helps maximize your investments in two-way radio, broadband data and telephony by enabling secure, real-time push-to-talk across any infrastructure.



Bluetooth® Headset

Unleash the power of your radio with Bluetooth. Bluetooth 2.1 audio is embedded in the radio enabling fast and secure pairing with a variety of wireless accessories.



CASE STUDY THE DIRECTORATE FOR EMERGENCY COMMUNICATION (DNK)

Norway's Directorate for Emergency Communication (DNK) is partnering with Motorola Solutions to build the 'Nødnett' nationwide public safety voice and data communications network. The secure, mission critical network is providing reliable communications for the police, fire departments and paramedics. It will also be used by other public agencies including search and rescue, border control and civil defence teams. DNK has seen a sharp rise in demand for data services. And with the goal of providing mission critical teams with the secure, dedicated and continuous data services they need, it has implemented TEDS on its network. With TEDS able to provide the secure and reliable data services that the emergency services require, public safety teams will be able to work more effectively with enhanced situational awareness and improved intelligence to better safeguard both themselves and the public.



UNCOMPROMISING SAFETY. INTELLIGENT PRODUCTIVITY.

CASE STUDY GASSCO AS

With safety being a top priority at its gas metering and receiving terminals, Gassco has chosen to deploy a Dimetra IP Micro TETRA network which will provide robust and reliable communications between operators and maintenance staff at its plants in northern Germany. ATEX-approved MTP850Ex terminals with a 'man down' feature and SafeMobile's real-time GPS tracking solution enable workers to keep in contact throughout the plants, enhancing security and efficiency.

Gassco Norway owns some 7975 kilometres of gas pipelines and is responsible for the safe and efficient transportation of gas from the North Sea to Europe. Its subsidiary, Gassco Emden, operates three landing stations in Emden and Dornum.



PRODUCT HIGHLIGHTS



ACTIVE NOISE CANCELLING REMOTE SPEAKER MICROPHONE (RSM)

Whether you're on an oil platform or plant floor, this RSM is optimized to perform within extremely noisy, dirty and difficult environments. With its rugged construction, 3.5 mm audio jack, dual PTT button and exceptional noise cancelling technology, the ANC RSM overcomes excessive noise, from pounding jackhammers to banging equipment.



MTP8000EX ATEX PORTABLE RADIOS

The MTP8000Ex Radio Series sets a new standard in TETRA ATEX radios. From their form to their function, these new radios have been carefully engineered to address workers' needs and offer the ultimate in safe, reliable and efficient communications in hazardous environments.

Meeting the latest V6 ATEX and IECEx standard, this next generation of TETRA ATEX radios represents a significant step forward in mission critical communications designed for end-users who work in areas with potentially explosive gases or chemical vapours, flammable liquids or combustible dust.

The MTP8000Ex Series TETRA ATEX radios deliver powerful audio, enhanced coverage, extended battery life, greater ruggedness, advanced ergonomics and increased usability, so personnel working in the most extreme environments have the ability to work safer, work smarter and work anywhere.

OIL & GAS

SAFER OPERATIONS. GREATER PRODUCTIVITY.

UNCOMPROMISING SAFETY

Maintaining the safety of workers in all areas of the site is vital to operations and financial security. Meeting the latest V6 ATEX and IECEx standard, the MTP8000Ex Series TETRA ATEX portable radios are designed to withstand the rigors of the environment. TETRA terminals and dispatch consoles are designed to include Emergency Notification or Emergency Shut-down when an incident occurs, and the Man Down feature can be set to send a notification to the controller if the user falls or is inactive.

GPS notifications are sent from the handheld or mobile terminals to the controller so that the nearest worker or vehicle can be sent to the incident, and geo-fencing can be used to provide automatic alerts when selected areas are entered.

INTELLIGENT PRODUCTIVITY

TETRA can provide machine-to-machine communications for the automatic monitoring of plant or pipelines, reducing the need for human intervention and providing early notification of potential problems.

Efficient operations need a flexible communications system where workers can be identified and allocated to tasks, while maintaining communications throughout the event and after. Call-Out and Object Call are just two of the advanced features available to task individuals or teams, and special types of alerting and emergency notifications can be used to keep workers aware of developing situations.

ASSET SECURITY

The cost of equipment and tools are high and, in addition to replacement costs, there can be losses to production if they are mislaid or stolen. Video analytics help controllers to use fixed surveillance cameras efficiently. Tools, such as automatic boundary monitoring and unit numbers or license plate recognition, will alert controllers to unauthorised access. Mobile video services can be provided through Motorola's TETRA mobile radios with TEDS or over LTE for high definition, and the controller can switch between the radio bearers as needed. For example, an LTE video feed from an autonomous vehicle could be switched to TEDS if out of range of LTE, or a TEDS video feed switched to LTE if high definition video is needed.

Barcode and RFID tracking technology solutions can be built into the control system to further enhance asset tracking in a complex operation.



WAVE Work Group Communications

WAVE business-critical solutions unify massively complex communication environments so enterprise workers can collaborate more productively from anywhere, on any device and across any network. WAVE helps you maximize your two-way radio, broadband and telephony investments by delivering secure, real-time PTT across any infrastructure, from the radio core to the broadband edge.

MTM5400

High power modes and the Gateway Repeater functionality features required by end users in areas of limited coverage.



TEDS

Data speeds over TETRA are significantly improved with TETRA Enhanced Data Service. This will improve machine-to-machine communications for equipment monitoring.

Accessories

Accessories personalise your radio to the unique challenges you face in your work environment. Select from a variety of ATEX certified accessories that enhance your safety when working in hazardous conditions.



TRANSPORTATION

MAINTAIN ON-TIME OPERATIONS WHILE CONTROLLING COSTS

Access to real-time data is critical to each and every safe arrival, which is the foundation of what keeps the business of moving people or cargo going 24/7. Motorola Solutions provides critical Transportation users the capability to keep operations moving with hassle-free efficiency, no matter where the location.

Connect your workers with rugged and resilient TETRA networks scalable to your operation. Equip your teams with rugged high capability terminals, which will connect reliably throughout your property and provide exceptional audio capability in very noisy backgrounds. Customise your radios with specialised accessories optimised for their environment including high background noise headsets. Provision rolling stock with TETRA mobile radios such as the MTM5500, which can be fitted with control heads at both ends of the train (up to 80m separation) or the Telephone Style Control Head. Ensure end user safety with special messaging applications and man down alerts.

Manage incidents and maintain operator and passenger safety with advanced features, such as special alerts, and flexible group enabling such as Object Call.

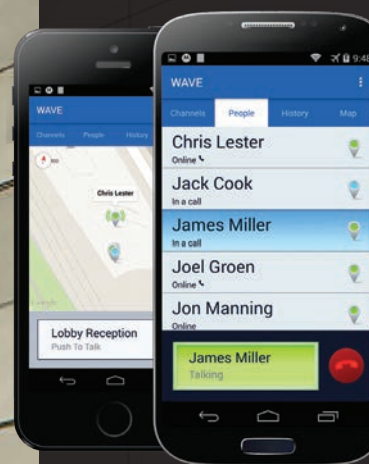
Enhance control with video analytics to automate the analysis of vehicle identification, facial recognition and the detection of suspicious objects to reduce the load on controllers and security staff.

PRODUCT HIGHLIGHTS

CONNECTED WORKERS

Team members equipped with communications technology that has been designed for the environment in which they work means they can keep in touch with outstanding audio and coverage, be heard in noisy environments, and get their message across – the first time. Radios need to work in dangerous situations where flammable gas and liquid is present, and must withstand corrosion and rough handling. Rely on Motorola to provide radios which are up to the task.

NEW FOR 2015



WAVE Work Group Communications

WAVE Work Group Communications is a communications interoperability and broadband push-to-talk (PTT) solution that delivers real-time voice and data securely over any network using any device. From two-way radios to smartphones, laptops to landlines, tablets to rugged handhelds, users can use the devices they already have and the networks they already subscribe to and PTT with other teams and individuals both inside and outside of their communication system.

Wherever your personnel are, whatever they do, WAVE Work Group Communications lets them connect with simple, secure and affordable PTT.

KEEP ON MOVING. AIR, RAIL, ROAD OR SEA.



MTP3550

For users who require a fully featured TETRA radio with a full keypad.



MTP6750

With an integrated high-resolution camera the MTP6750 radio creates many possibilities for maintenance and operations.

Integrated Transportation Communications Centre

The movement of people and cargo is a dynamic, real-time environment – the nature of this business demands quick decision-making to ensure the right person or package arrives at the right location at the right time. Pull voice, data and video into a single unified stream.

MTM5500 and TSCH

Highly flexible and capable mobile radio that permits the installation of multiple control heads and/or the new Telephone-Style Control Head up to 40m from the radio.



Accessories Environments

Accessories personalise your radio to the unique challenges you face in your work environment. Our extensive range of tough and reliable TETRA accessories helps your radio work at the limit in the most demanding situations. IMPRES™, optimises the audio of your accessory. Windporting ensures you get clear communication in windy and wet environments.

CASE STUDY SHANGHAI METRO

Shanghai hosts the largest TETRA-based urban rail communications system in China and Asia – the Shanghai Metro TETRA Network. While the size of the Network with over 5,100 users is impressive, it truly stands out for its innovative use of network management, scheduling and redundancy.

The Network has demonstrated the viability of data services such as short data service (SDS), and has made great strides in expanding the network security, reliability, scalability, and cost-effective integration with the 800MHz Shanghai Government Radio Network based at the Shanghai Economic and Information Bureau. The integration between both systems provides wider coverage for first responders in mission-critical situations and emergency operations.

Shanghai Metro is tasked with running the urban rapid transit system of China's largest city, Shanghai, and delivered 2.101 billion rides in 2011, making it the fifth busiest in the world.



TETRA TERMINALS & ACCESSORIES



COMMUNICATE CLEARLY IN HARSH ENVIRONMENTS

In harsh environments, you want to talk and hear clearly above the noise. Whether you are in a noisy oil refinery or in the midst of fighting a fire, you can't afford to lose seconds struggling to get your message through. The Active Noise Cancelling (ANC) Remote Speaker Microphone (RSM) has been designed to withstand the toughest environments, while providing clear communications. The Nexus-jack has an open ATEX/IECEx interface, enabling third party headsets and apparatuses with compatible interfaces, such as the Dräger FPS-Com-Plus, to be used safely.



Our unique Bone Conduction accessories convert audio into sound vibration and transmit it to your inner ear. The miniature earpiece leaves the face unobscured, allowing users to hear and speak directly to others in loud environments.



TETRA ACCESSORIES FOR THE TOUGHEST CHALLENGES IN THE MOST DEMANDING ENVIRONMENTS

Chasing a suspect down a busy street or managing a major fire, you depend on communications that perform in demanding environments. That's why it's critical to choose the only accessories designed, tested and certified to work optimally with Motorola TETRA radios.



INTEGRATED BLUETOOTH®

Bluetooth 2.1 audio is embedded in the radio enabling fast and secure pairing with a variety of wireless accessories. Easy to attach and pair, Motorola Bluetooth accessories enhance performance and security wherever you work. Hear and be heard clearly, even in noisy environments. Talk discreetly undercover. Move without wires and use your radio like never before.



MOTOROLA ORIGINAL® BATTERIES

Your radio is only as good as the battery that powers it. Hazards that can kill other batteries don't affect ours. That's because we build batteries specifically for Motorola radios, and then test them in real-world conditions to prove they are some of the toughest and most reliable around, so your radio won't let you down when you need it most. That's why it's so important to only use Motorola Original batteries and chargers.



MTP6750

From enhanced intelligence gathering to efficient reporting, the multimedia capabilities of the MTP6750 radio creates many possibilities for public safety. With an integrated high-resolution camera, the first of its kind in a TETRA radio, the MTP6750 makes it easy for law enforcement officers to capture critical crime scene information.



MTP6550

Designed based on direct input from front line officers, the MTP6550 TETRA portable delivers the intuitive operation, reliability and uncompromising performance that is vital to mission critical operations.



MTP3550

A fully-featured TETRA radio with a full keypad, End-to-End Encryption, Man Down Sensor, Vibrate Alert and embedded secure Bluetooth.



MTP3500

A fully-featured TETRA radio with End-to-End Encryption, Man Down Sensor, Vibrate Alert and embedded secure Bluetooth.



MTP3250

For users who require a feature rich radio with the addition of a full keypad.



MTP3200

Adds location services, Air Interface Encryption and secure Bluetooth for users who require a feature rich radio.



MTP3150

Entry level radio, packing in all the TETRA essentials with the addition of a full keypad.

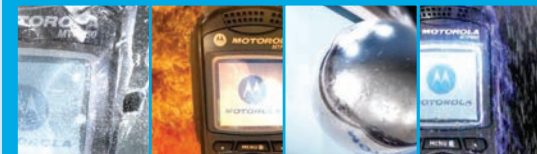


MTP3100

Entry level radio, packing-in all the TETRA essentials which are vital for safe and effective operations.

TESTED TO THE LIMIT

Our ALT and other testing stress our radios to simulate a full five years of hard use. Five years of being dropped, bashed, shaken, heated, frozen, shocked, and soaked; and that's not just five 'consumer' years, but five 'mission critical' years of hard use.



MTP8500Ex

Simple keypad TETRA ATEX portable radio that delivers powerful audio, enhanced coverage, extended battery life and greater ruggedness, meeting V6 ATEX and IECEx standards for hazardous environments.



MTP8550Ex

Full keypad TETRA ATEX portable radio that delivers powerful audio, enhanced coverage, extended battery life and greater ruggedness, meeting V6 ATEX and IECEx standards for hazardous environments.



MTM5200

TEDS-ready base model that shares the enhanced audio and receiver sensitivity of the current MTM5400.



MTM5400

High power modes and the Gateway Repeater functionality features required by end users in areas of limited coverage.



MTM5500

Highly flexible and capable mobile radio that permits the installation of multiple control heads and/or the new Telephone-Style Control Head up to 40m from the radio.

TSCH

Fully compatible with MTM5400 radios, the design attributes of the Telephone-Style Control Head (TSCH) ensure uncompromising performance for mission critical operations.



EXPECT MORE

INTEGRATE YOUR FLEET

A fast and effective terminal management system is key in maintaining total control of your fleet, wherever it's located, so you can react and coordinate resources with minimal impact to the user. Motorola Integrated Terminal Management (iTM) is a modular system aimed at fleets of 100 to 150,000 radios. All radio details including versions and programming data are stored, and management PCs create upgrade and configuration jobs. Reporting tools keep you constantly updated, and email upgrade reminders. To complement our imaging solution we've introduced iTM pics to seamlessly integrate image management to front line and back end processes.

EFFICIENCY

- Secondary Common Control Channel reduces network congestion
- Radio Messaging System (RMS) for sending high priority messages for immediate viewing
- Call Out for sending near-instant, high priority messages to part-time or off-duty officers and receiving notifications when they accept an assignment
- RUI/RUA to control pooled radios, with a security code, and automatically access personal settings.

SECURITY

- End-to-end Encryption enabling ultra-high voice and data security for special situations or agencies
- Terminal Kill to disable radio functionality and prevent unauthorised operation of lost or stolen radios

CONGESTION MANAGEMENT

- Radio and Cell Control to manage congestion by controlling which radios are given priority access, which are blocked from local site trunking and which work where networks overlap



TETRA EVOLUTION

VIRTUALISED IP CORE PROVIDES FLEXIBILITY FOR GROWTH AND EVOLUTION

The latest release of the Motorola TETRA core is based on a virtualised core which separates the hardware and software migration paths. New software loads run on existing hardware, or new hardware will run existing software. Both can be upgraded separately as necessary to increase capacity, provide higher levels of security, or enable new applications or services. This gives operators the freedom to develop, upgrade and maintain the TETRA network in a way best suited to their needs.

WHY UPGRADE TO TEDS?

TEDS will provide a significant increase in data speeds whilst retaining all of the TETRA security and resilience features. TEDS is:

- Here Today
 - Standards Based
 - Covers 90% of Applications
 - On current systems, requires no new hardware
- Motorola is 100% committed to TEDS



THE MTS4L TETRA / LTE BASE STATION makes it easy to build LTE upgrade capability in to a TETRA network. Adding LTE requires no additional footprint and can be done in less than 60 minutes with minimum or no interruption in TETRA service.

TEDS will increase the data speeds on TETRA networks whilst retaining their inherent security and resilience. TETRA virtualised core software and industry standard hardware platforms radically simplify upgrades and implementation of new features. Unified Network Services enable your TETRA network to interwork with other bearers and command and control systems with minimum adaptation.

TETRA NETWORKS

THE EFFICIENCY YOU NEED, WHEN YOU NEED IT

OPTIMISED FOR OPERATION CRITICAL CUSTOMERS

Dimetra IP Compact was developed for industrial and enterprise customers looking for reliability and efficiency, as well as availability and security from their communication systems.

SCALABLE FOR ALL SIZES OF NETWORKS

Dimetra IP Compact and Micro were developed for industrial and enterprise customers looking for lower cost of ownership, an easy migration path from existing analogue radio systems, as well as the availability and security of a TETRA communication system. The ground breaking MTS1 features a compact and robust design for easy transportation and rapid indoor or outdoor installation.



THE MTS1

The MTS1 TETRA base station is a small, rugged and easily deployable solution for indoor and outdoor coverage applications. Based on a high performance hardware platform, the MTS1 not only enables diverse and rapid deployments, but also ensures that operational costs are kept to an absolute minimum. MTS1 supports TEDS and is available in either AC or DC powered versions.

The DC powered version is suited for remote locations where the use of solar and/or wind power may be the only cost effective means of powering the site. DC power will be provided by these systems into a battery array which can then power the DC powered version of the MTS1 transceivers

RELEASE 8 DOES A LOT MORE FOR A LOT LESS

This power-efficient software for base stations supports both Dimetra IP TETRA and TEDS, providing cutting-edge voice and data applications with reduced space requirements and unmatched energy efficiency.

- Lower total cost of ownership
- More capacity, more security
- Future-ready for working with multiple networks and LTE

LESS COST

Release 8 does a lot more for a lot less. The virtualised servers and all IP architecture reduce power consumption by up to 70%.

HIGHER CAPACITY

The flexible IP base enables rapid upgrades to additional capacity. State-of-the-art IT servers enable exceptional levels of voice and data network capacity – a 50% increase in site capacity and 115% greater voice capacity.

ENHANCED SECURITY

Comprehensive advanced server redundancy options and improved link security to prevent intrusion and malicious attacks.

LONG TERM EVOLUTION

A TETRA system is a long-term investment, which continually evolves. Release 8 provides an upgrade path to support broadband and LTE networks. Its virtualised architecture separates software and hardware platforms, creating an operating environment ready to support future unified TETRA and LTE broadband systems.





SMART PUBLIC SAFETY SOLUTIONS

TRANSFORM INTO INTELLIGENCE-DRIVEN COMMAND CENTERS TO DETER CRIMES AND IMPROVE OUTCOMES

FOCUS ON YOUR MISSION

Every day, public safety and service operations are under increasing pressure, not only to respond quickly, but also to proactively detect and prevent incidents. To achieve greater information access and smarter workflows, they need a next generation platform that breaks down barriers that prevent the flow of information to those who need it most.

M-VISION

M-Vision is a command and control solution offering full on-screen integration with voice communications, mobile data, smart-phone devices and video. The system is highly configurable, so you can tailor it to your own specific operational needs. Perfect for single-agency fire, police and ambulance services, or as a multi-agency solution providing all the functionality for call taking and dispatching.

As situations develop, M-Vision can provide voice and text updates so response teams have up to the minute data at their fingertips. Operators track incidents and response status in real-time on a single screen, rescheduling officer duties, initiating radio calls and liaising with support agencies. All for faster response and incident resolution.

No matter the starting point of an agency's next generation journey – voice, video, CAD, mobile data or records management – Motorola brings together new and existing technologies to create the solutions needed to build an integrated platform that allows customers to realise their next generation vision.

MOTOROLA CONSOLES

Consoles such as the MCC 7500 are designed for effortless integration and ease of use in the field with a flexible interface. They provide secure prioritised emergency communications and work seamlessly with existing analogue or conventional networks for simple migration to a TETRA trunking solution. Motorola consoles are ready to evolve with your needs too, keeping you at the forefront of communication technology now and in the future.

MCD 5000 DESKSET

The MCD 5000 Deskset provides digital control for a variety of Motorola two-way radios, and can connect directly to a radio or over an IP network using the MCD 5000 Radio Gateway Unit (RGU).

SMARTER DECISIONS. FASTER RESPONSES.

NEW FOR 2015

CommandCentral Analytics

Simple, Powerful, Mobile Crime Analytics

Delivers the power of data analytics, visualization, and information sharing to enable agencies to make better intelligence-led decisions at every level. With a powerful and intuitive crime analytics dashboard analysts can effortlessly turn crime data into intelligence, identify and understand strategic priorities, and break down information silos.

OPTIMISING SITUATIONAL AWARENESS WITH INTELLIGENCE-LED PUBLIC SAFETY

Public safety agencies are grappling with the flood of data from an abundant number of sources as they fight crime. Turning video, social media, shared databases and a growing number of data sources into actionable intelligence continues to be a significant challenge for agencies across the world. Intelligence-Led Public Safety solutions integrate multiple data sources and apply analytics and automation to provide actionable intelligence. From command center personnel to the responders on the street — realise enhanced strategic, support so you can avert, respond and solve crimes more effectively.



STRATEGIC SOLUTIONS

With our strategic solutions, we can provide a highly accurate prediction engine with targeted area prediction reports and tiered prioritization of areas. This can lower your tactical administration costs and increase patrol efficiency and effectiveness — allowing you to target and reduce specific crime based on your priorities.

INITIAL RESPONSE SOLUTIONS

Our initial response solutions enable a greater degree of situational awareness through a common operational view. Geospatial visualization of all your most important data with real-time video access to video, detection and alerting of potential threats and rapid search. All of this is available both in a command center or a mobile environment.

INVESTIGATIVE SOLUTIONS

Our investigative solutions enable you to benefit from advanced crime analytics to automate processing within structured or unstructured data and explore relationships between that data in more meaningful ways. Digital evidence capture allows you to collect audio, video and other multimedia and quickly create a report that is fed directly into your RMS. And we provide social analytics to find meaningful Law Enforcement intelligence and powerful search that provides ultra fast responses and simplified information retrieval.

OPERATIONAL SOLUTIONS

Our analytics and advanced data exploration can help you drive tactical and strategic decisions by making your data smarter. Reduce analysis time, provide CompStat and roll call reporting and disseminate data across your organization as well as others to increase overall effectiveness. Sharing crime data and increasing transparency can help increase community confidence and overall engagement.

CommandCentral Predictive

Accurately predict and prevent crime.

Applying multiple proprietary algorithms synched to your RMS data produces daily, targeted crime forecasts proven in field-tests to accurately predict 30% of next day crime. This tactical tool provides officers with daily predictions three-times more accurate than Hot Spot analysis and allows agencies to conduct directed patrol initiatives in areas that are one-third smaller than their average patrol area.

SERVICES FOR MISSION CRITICAL AGENCIES

RELY ON EXPERTISE FOR OPTIMUM PERFORMANCE

Motorola Solutions can help you address the challenges faced in financing, deploying, integrating, operating and securing mission-critical systems and devices at every stage of the technology lifecycle. Our engineering and networks specialists adhere to certified processes and standards including ISO, ITIL, PMBOK, Six Sigma quality standards and more to ensure your performance targets are achieved. Maximise your system availability and equipment uptime with Motorola's comprehensive services designed to provide the right level of support you need to manage ever-changing technology and network complexities so you can focus on your mission.

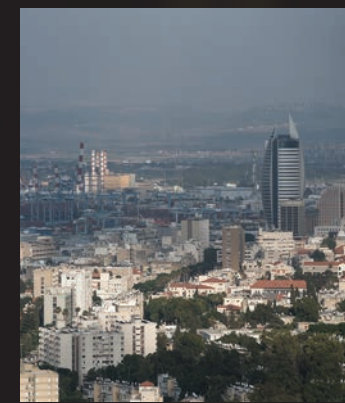
LIFECYCLE MANAGEMENT

SIMPLIFY NETWORK EVOLUTION WHILE MAXIMISING RETURN ON INVESTMENT



With the rapid pace of technological advancements in mission-critical communications, avoid the risk of falling behind the technology curve and using aging systems that are unable to take advantage of new features and capabilities.

Motorola's Lifecycle Management Services help eliminate surprise capital requests by building a long-term, predictable budget for network migration, upgrade and expansion.



MANAGED SERVICES OFFLOAD THE RISK AND COST OF MANAGING COMPLEX COMMUNICATIONS SYSTEMS

As you are expected to do more with less, bridging the gap between limited resources and the need for reliable communications is crucial. Motorola provides a full range of managed services, allowing you to offload operational risk, cost and management responsibilities for improved system performance and a sharper focus on your mission. We can manage all or part of your communications system – from Build, Transfer, Operate (BTO) to Build, Own, Operate (BOO). By partnering with Motorola, we work with you to develop a solution that effectively supports your specific needs both now and into the future – adhering to your service level expectations. With a proven track record in successfully operating some of the largest and most complex mission-critical communications systems in the world, we have the expertise to take on the responsibility of guaranteeing system reliability and performance, while relieving you of the financial and operational risks associated with managing your communications system.

TRACES

SOLID ANSWERS TO REAL-WORLD CHALLENGES

TRACES allows public safety organisations and network operators to collect, visualise and evaluate data from mission critical TETRA networks. It enables them to view usage patterns and quickly identify and react to coverage black spots, thereby maintaining a stable network at all times. The solution was developed in collaboration with London's Metropolitan Police Force. They wanted a solution to help them gain visibility into network coverage issues that impacted the ability of officers to make calls during major events in the City; with ability to evaluate and analyse data post event.



SERVICE FROM THE START GET PEACE OF MIND THAT AVAILABILITY IS OPTIMISED AND PUBLIC SAFETY OFFICERS CAN COMMUNICATE AS REQUIRED

When operating in a mission critical environment system, downtime is not an option. You need the peace of mind that availability is optimized and first responders can communicate as required. In the event of an outage, you need a contingency and support plan to ensure challenges are overcome seamlessly. Service from the Start offers a range of support packages to ensure your TETRA terminals, including ATEX radios and Dimetra Small Systems, are protected with technical support, software updates, expert repair and more.





SAFER CITIES. THRIVING COMMUNITIES.

For more information on our TETRA Solutions, please visit us on the web at:
www.motorolasolutions.com/TETRA

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