



# **TETRA** **MISSION CRITICAL** **COMMUNICATIONS** **SOLUTIONS**



**MOTOROLA SOLUTIONS**

# A UNIFIED MISSION CRITICAL ENVIRONMENT

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 Solutions 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



**ST7500**

**ST7500  
COMPACT  
TETRA  
RADIO**

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**MTP6650**

**MTP6650  
TETRA  
PORTABLE  
RADIO**

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**LEX L11**

**LEX L11  
MISSION  
CRITICAL LTE  
HANDHELD**

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**MTP8000Ex SERIES**

**MTP8000Ex SERIES  
TETRA ATEX RADIOS**

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Take advantage of technology convergence by combining TETRA and LTE to create a future-proof 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

# TETRA: A FUTURE-PROOF TECHNOLOGY

## ADVANCED MISSION CRITICAL COMMUNICATIONS FROM THE WORLD'S LARGEST SUPPLIER OF TETRA SOLUTIONS



### ST7500 COMPACT TETRA RADIO

Being on the frontline demands a special kind of communication device that's easy to carry yet rugged and capable enough to get the job done. The ST7500 is a compact TETRA radio that weighs less than 200 grams, making it easy to carry and easy to wear in a variety of belt or body-worn configurations.

Despite its size, performance is mission-critical with leading-edge features such as Multi-Band Compression for loud and clear audio, a hybrid antenna and the latest Bluetooth® 4.1 LE technology for collaborating with a range of complementary devices and wireless accessories. Whether responding to a riot in a town centre or dealing with a road traffic accident, the ST7500 provides public safety officers with a device that's fully capable and simple to use in the moments that matter for optimum response and safety.



### KEY BENEFITS

- Compact and lightweight
- Simple and intuitive user interface
- Bright OLED display
- Loud and clear audio
- Rugged and robust with IP65, IP67 and MIL-STD 810 D E F G
- Hardware based end-to-end encryption
- Vibration Alert
- MAC13 accessory connector
- Bluetooth 2.1 and 4.1 LE wireless technology
- GPS, BeiDou and GLONASS location services
- Up to 22 hours battery life
- Proprietary hybrid antenna technology
- Wi-Fi ready

### 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 interoperability across national borders, particularly with the neighbouring Swedish TETRA network. Nødnett has more than 2,100 base stations covering Norway's 324,000 km<sup>2</sup> 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.



## 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 Solutions 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 (GNSS -outdoor, Bluetooth -indoor)
- Set up telemetry to let your machines talk to each other
- Manage your fleet effectively and automate updates

## 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.

## GREEN TETRA 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 Solutions portable radios enables officers to send information from other devices such as gun holster alert sensors, bio monitors and cameras.

## OPTIMISING RESOURCES AND USE OF FUNDING

Better support real-time operations from the command centre by combining voice, data and video into a single, integrated position with CommandCentral Aware.

CommandCentral Aware aggregates and integrates streaming video, real-time alerts, advanced data analytics, resource tracking, social media analytics, voice, Computer Aided Dispatch (CAD), records information and more into a single, intuitive interface with layered geospatial mapping.

It allows Intelligence Operators and Analysts in a control room or other operational environment to communicate actionable intelligence via voice and data to field staff.

Analysts and Investigators can also use CommandCentral Aware to support investigations and strategic planning.

## EVOLVING FOR THE FUTURE

TETRA continues to offer secure and resilient voice service and data service, which is enhanced with TEDS on the infrastructure and Motorola Solutions mobile radios. Public or private LTE service will complement TETRA, offering broadband data service in high value areas. The MTS4L TETRA/LTE base station 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 Solutions LEX L11 Mission Critical LTE Handheld works as a voice and data terminal. The combination of LEX L11 and TETRA radios gives the user access to the best of both communications systems in devices optimised for their needs.

## PRODUCT HIGHLIGHTS

## MTP6650 TETRA PORTABLE



The MTP6650 TETRA portable radio is designed with enhanced coverage, built-in Bluetooth® 4.1 wireless technology, Wi-Fi readiness, expanded location services, and full car kit support, it's an exceptional radio now that will support your team well into the future. Now you can reach personnel even in marginal areas with Class 3 transmit power. Plus, you have the ability to optimise your coverage based on the type of environment in which your team is working. The new open standard SMA connector gives you the flexibility to use different antennas. There's also Bluetooth® 4.1 for adding connected devices—such as a PTT button or a heart rate monitor—without adding wires. And you can easily transform your portable radio into a virtual mobile using the full car kit. Whether you're guiding teams into an emergency or allocating day-to-day resources based on location, now you can do it more effectively. The MTP6650 delivers additional Global Navigation Satellite System (GNSS) capabilities to Eastern Europe and Asia, enhancing GPS with GLONASS and BeiDou.

## ADVISOR TPG2200 TETRA TWO-WAY PAGER

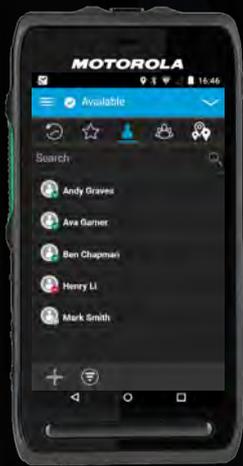
With its enhanced coverage and extended battery life, the TPG2200 TETRA Two-Way Pager ensures you can reach firefighters, emergency personnel, and healthcare workers when they're needed most. The TPG2200 is simple to use, with a bright, 2" colour display and familiar user interface. Carry the pager anywhere without it getting in the way thanks to a lightweight, compact design. And, since the TPG2200 is IP54 rated for dust and water protection, you know it will keep working even when exposed to the elements.



## MTP3500 & MTP3550

The MTP3000 Series radios are the result of more than 20 years of focus in TETRA on increasing user safety, enhancing efficiency and improving communications. The radios are packed with features that are essential for safe and effective operations, as well as loud and clear audio and a rugged design. The MTP3500 features a simple keypad, while the MTP3550 has a full keypad. Both the MTP3500 and MTP3550 are fully featured radios for public safety and mission critical users, with a man down sensor, vibrate alert and End-to-End Encryption (E2EE).

# LEX L11 MISSION CRITICAL LTE DEVICE



The LEX L11 has been designed with first responders in mind. Every feature and function is thoughtfully considered, from the rugged, easy to operate design, dedicated push-to-talk-button to the always loud and clear audio. Enhanced accessibility is provided through a suite of accessories.

Rugged and durable yet streamlined and slim, you can count on the LEX L11 to perform when it's needed most.



## 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.



### ENHANCED COVERAGE

When emergencies happen, you need to communicate quickly and easily with your personnel. With its 1.8W transmit power and increased static and dynamic sensitivity, the TPG2200 TETRA two-way pager gives you enhanced coverage so you can reach your personnel - and they can reach you. And with an LED coverage indicator, they will always know when they are connected.

### HOME STATION

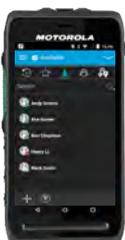
Keep the battery fully charged using the home station, so the TPG2200 TETRA two-way pager is ready when you are. The home station also features an external SMA swivel antenna that enhances indoor coverage when the pager is docked as well as an integrated LED warning light and a Relay connector for additional alerting devices.

### SECURE ENCRYPTION

You need to stay focused on the emergency without worrying about security. The TPG2200 TETRA two-way pager supports multiple encryption protocols, including BSI SIM and AIE TEA 1, 2 and 3, so your communications stay protected.

### GPS

Manage your resources better by keeping track of your personnel using built-in GPS. When there's an emergency, for example, you can send messages only to those closest to it. That way, you'll be confident your people will get to the scene quickly, and the situation will be resolved fast.



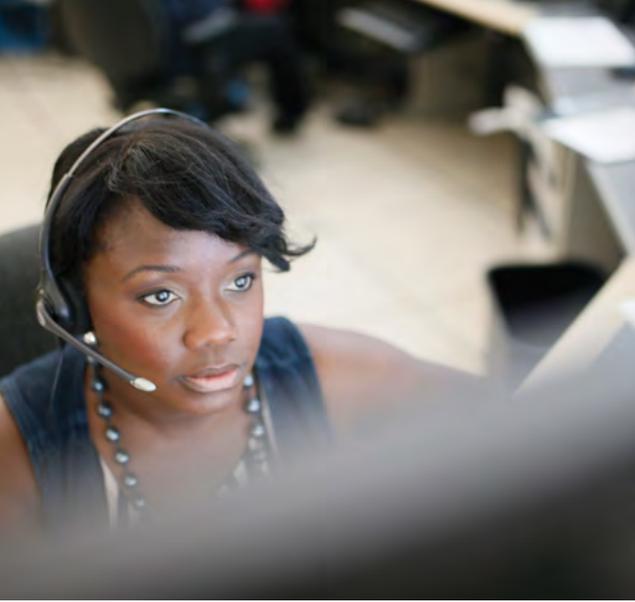
### WAVE™ PTT

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 maximise 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.

### 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.





# 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 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.



## ACTIVE NOISE CANCELLING REMOTE SPEAKER MICROPHONE

Whether you're on an oil platform or plant floor, this Remote Speaker Microphone (RSM) is optimised 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 Active Noise Cancelling RSM overcomes excessive noise, from pounding jackhammers to banging equipment.



## DIMETRA EXPRESS IS A FLEXIBLE TETRA SYSTEM.

With a choice of integrated switch and base radios in one-box or a modular system, it's simple to set up, deploy, and manage your communications while reducing your costs.

Offering the voice, short data, and telephony services your teams demand. And it's expandable to multiple sites, so it can grow as your business does.

# PRODUCT HIGHLIGHTS

# 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. Built to the latest ATEX and IECEx standards and rated at IP67, the MTP8000Ex Series TETRA ATEX radios are designed to withstand the rigours of the toughest and most hazardous environments. With powerful audio, enhanced coverage, extended battery life, greater ruggedness, advanced ergonomics and increased usability the MTP8000Ex Series gives workers the ability to work safer, work smarter and work anywhere.

If an incident occurs the Man Down feature will 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 Solutions 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.



## MTP8000Ex SERIES TETRA ATEX RADIOS

The MTP8000Ex 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 ATEX and IECEx standards, 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.

### 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.

### 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 Solutions to provide radios which are up to the task.

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

## PRODUCT HIGHLIGHTS



### MTP3550

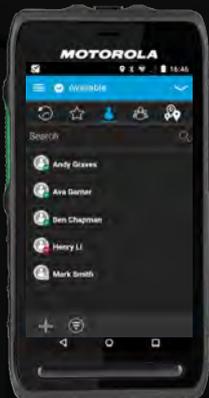
For users who require a feature-rich TETRA radio with a full keypad.



### MTP6650

With its enhanced coverage, built-in Bluetooth® 4.1 wireless technology, Wi-Fi readiness, expanded location services, and full car kit support, it's an exceptional radio.

## WAVE PTT



## WAVE PTT

WAVE PTT 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 PTT lets them connect with simple, secure and affordable PTT.



## 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.



## 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

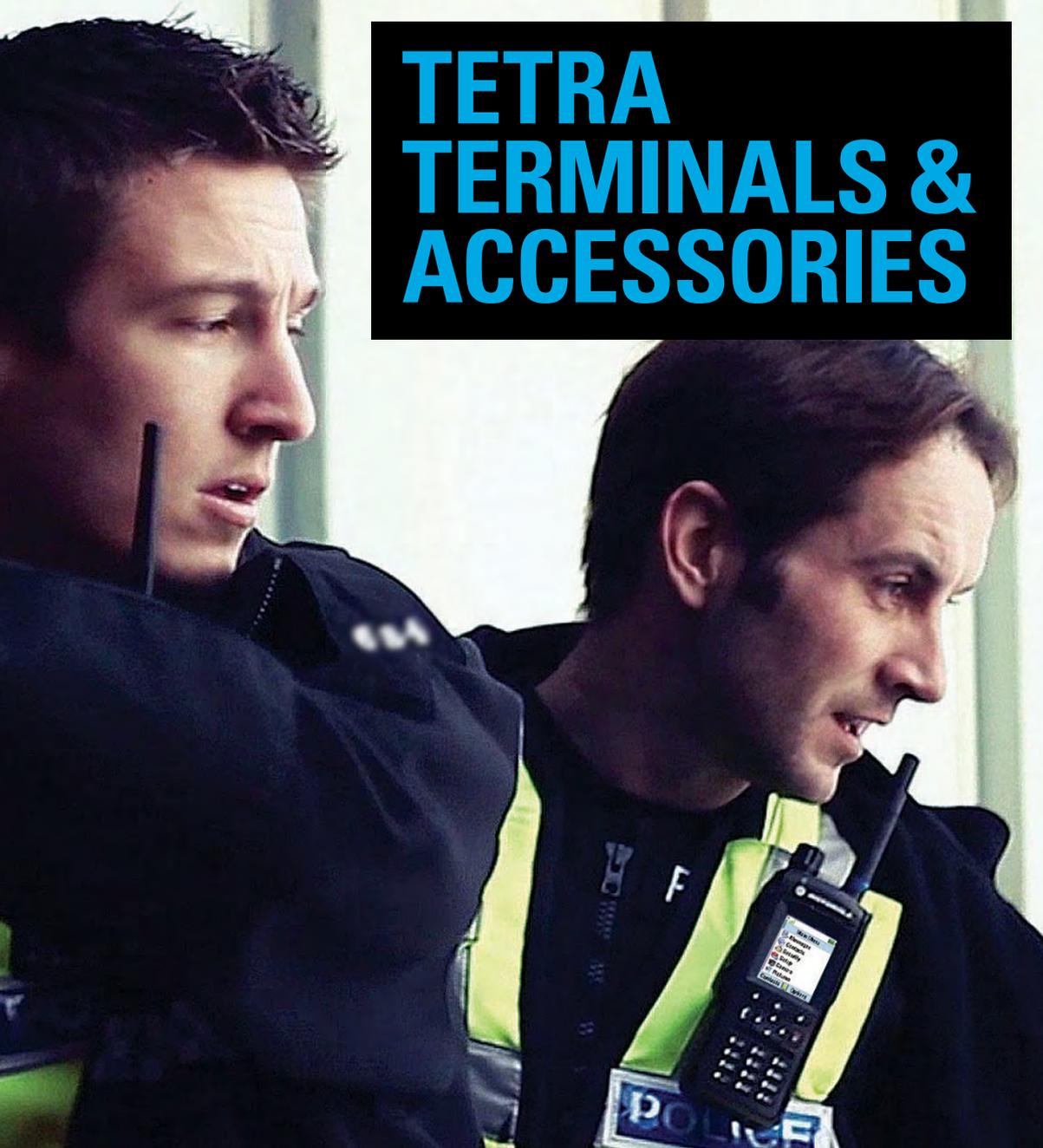
Highly flexible and capable mobile radio that permits the installation of multiple control heads and/or the new Telephone- Style Control Head up to 40m from the radio.



## 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.

# TETRA TERMINALS & ACCESSORIES



## 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 Solutions TETRA radios.

## INTEGRATED BLUETOOTH®

Bluetooth audio is embedded in the radio enabling fast and secure pairing with a variety of wireless accessories. Easy to attach and pair, Motorola Solutions 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.



## 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, so you can communicate while wearing helmets or other headgear.



## MOTOROLA SOLUTIONS 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 Solutions 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 Solutions Original batteries and chargers.





### ADVISOR TPG2200 TWO-WAY PAGER

With its enhanced coverage and extended battery life, the ADVISOR TPG2200 TETRA two-way pager ensures you can reach firefighters, emergency personnel, and healthcare workers when they're needed most.



### MTP3500

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



### MTP3550

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



### 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.



### ST7000

The ST7000 delivers uncompromising audio quality and coverage in a small, elegant and discreet form factor ideal for customer-facing staff.



### ST7500

The new ST7500 is frontline ready, combining a small but rugged design with mission-critical performance.



### MTP8500Ex

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

## 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.



### 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 MTM5500 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 Solutions 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

## DIMETRA X CORE

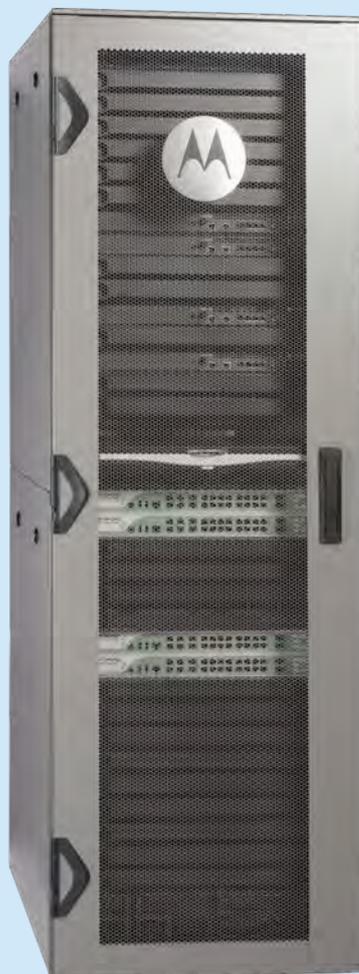
### READY FOR THE FUTURE, TODAY

For government organisations, public safety agencies and large enterprises, mobile broadband is on the way. And while you don't know when that change is coming—you can be ready for it with DIMETRA™ X Core.

It's designed to make the most of your existing DIMETRA network today, while preparing you for the additional capabilities offered by mobile broadband tomorrow.

#### KEY FEATURES

- Advanced architecture
- Software-defined core
- Protected investment in radio access network
- Fully scalable from one to 5000+ sites
- Comprehensive feature set
- Consolidated, virtualized core
- Flexible capabilities
- Flexible capacity
- Scalable pricing
- Lower operational costs
- Lower total cost of ownership
- Proven DIMETRA technology



With a software-defined core, enhanced cyber security and smart interfaces, DIMETRA X Core is built for long-term performance, giving you the mission-critical communications you need for the next 15 years or more. By replacing your existing core network with DIMETRA X Core, you'll be making a cost-effective investment to enhance and prolong the service life of your DIMETRA radio access network.

As technology evolves, so will your DIMETRA system. It features a fully scalable architecture that allows system design and expansion from one site to 5000 or more. And as your needs change, you can easily add new users or capabilities by enabling software licenses.

DIMETRA X Core consumes less energy and lowers the long-term total cost of ownership for your organisation. Not to mention offering scalable pricing, so you pay only for the capacity and capabilities you need. Based on proven DIMETRA TETRA technology and open standards, DIMETRA X Core is a secure, smart investment for your organisation's future.



# DIMETRA EXPRESS

## COMMUNICATIONS MADE SIMPLE

DIMETRA Express is a flexible TETRA system. By integrating the switch and base radios in a one-box or modular system it makes it quick and easy to set up, deploy, and manage your communications. Allowing you to simplify everyday operations whilst reducing costs and complexity over the long term.

You can quickly integrate DIMETRA Express into your network using a single IP address, provision multiple subscribers, and complete installation using web browser-based applications and tools. Once it's up and running, DIMETRA Express is easy to manage and operate through the simple web-based network management and dispatch applications.

DIMETRA Express offers the voice, short data, and telephony services your team's demand. And it's expandable to multiple sites, so it can grow as your business does.



**DIMETRA  
EXPRESS MTS4  
TETRA SYSTEM**



**DIMETRA  
EXPRESS MTS2  
TETRA SYSTEM**



**DIMETRA  
EXPRESS MTS1  
TETRA SYSTEM**



**DIMETRA EXPRESS  
STANDALONE  
TETRA SYSTEM**

### KEY FEATURES

- Flexible DIMETRA TETRA solution in one-box or modular system
- Easy-to-set-up and configure with web-based system installer
- Digital radio voice services
- Integrated short data services
- VoIP telephony interconnect services
- Intuitive web-based network management application
- Simple web-based dispatch application
- Easy-to-use web-based system health monitor
- Simple web-based radio control manager
- Efficient web-based text messaging application
- Easy network integration with a single IP address
- Robust and reliable digital radio communications
- Cost effective communication solution
- Easily expandable to additional sites



# SAFER CITIES. THRIVING COMMUNITIES.

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

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