DIMETRA™ IP Compact

a complete and compact TETRA solution
Motorola’s TETRA solutions leverage more than 75 years of communications excellence in the most critical and demanding environments – providing the peace of mind and confidence that only a global leader can bring. Quite simply, we do not compromise on technology:

- Deployment of the first ever commercial TETRA network in 1997 at the Gardermoen Airport in Norway and delivery of the world’s largest and most complex public safety TETRA network in operation to date which serves more than 150,000 users (based on Motorola’s Dimetra IP solution)
- First to implement an ‘all-IP’ TETRA network
- First to provide ‘Class 3’ encryption – the most secure level of air interface protection available in TETRA

Wherever radio coverage and capacity are operations critical, Motorola’s in-house technologies, solutions and best-in-class business relationships continue our proud heritage and commitment to serving the demands of public safety, transportation, industrial and commercial users around the world. Working with Motorola, customers can build on the widest technology portfolio in the industry and stay at the forefront of TETRA development – with compatibility and interoperability assured. Motorola is your trusted partner today, and in the future:

- We understand your requirements for resilience, reliability, redundancy and security.
- We continue to drive innovation, with leading-edge, IP-based TETRA network solutions and devices that include GPS, WAP browsers and Multi Slot Packet Data (MSPD).
- Dimetra IP Compact with its modular and scalable switch allowing you to expand coverage and services as demand grows, brings Motorola’s proven IP based TETRA solution to new markets.
**Why Dimetra IP Compact?**

**Communications solutions that can evolve as you grow**

Motorola’s Dimetra IP Compact is a fully integrated TETRA radio communications solution developed to meet the needs of public safety, industrial, commercial and enterprise users of all sizes, across all market sectors. Modular, scalable, compact and affordable, Dimetra IP Compact provides a flexible architecture that supports all the high-quality voice and seamless data capabilities demanded by professional mobile radio users, in a solution that can grow as your user base expands or you operational requirement change - enabling you to manage your investment. Whether you are starting small with a voice-only solution or deploying both voice and data, a modular approach means that you can expand coverage and services as demand grows – without disrupting your existing users.

**Proven capability & feature set**

Dimetra IP Compact uses the same software and technology platform as our nationwide Dimetra IP TETRA solutions deployed for some of the world’s most demanding and complex public safety networks. It provides users with the same tried and tested range of features plus a commitment to ongoing development and support that has established Motorola as the frontrunner in product innovation, network design and deployment.
Motorola’s 75+ years of experience in radio communications has resulted in a proven network architecture and technology platform that delivers comprehensive and high-quality TETRA voice services.

Core Architecture & Network Services

IP-based solutions for critical communications

Dimetra IP Compact delivers a fast, comprehensive communications solution using an enhanced IP architecture to ensure optimum call set up and availability. With its modular approach, users can deploy core services and expand features and coverage in line with operations / business requirements.
Security & Encryption

TETRA solutions offer the protection inherent in digital communications. Where even greater security is required, Dimetra IP Compact offers a number of enhancements including authentication, Air Interface Encryption and support for End-to-End Encryption.

Network Resilience

Motorola’s network architecture is proven through years of operational use in the most exacting environments. But for extra peace of mind, additional system redundancy ensures optimum performance – when and where it is needed most.

Voice Recording

Whether for industrial, commercial or public safety applications, Motorola’s voice recording solution enables users to record and playback communications at all times.

Packet Data Services

Realise the benefits of a truly integrated voice and data network with Motorola’s packet data solutions. Supporting single- & multi- slot packet data, it can truly mobilise your workforce and enhance business efficiency.

Telephony Services

Extend the reach of your network with the addition of telephony services. This will improve access to, and communications with, not only your own personnel, but those external to the TETRA network (via public telephony networks).

Short Data Services

Improve efficiency and productivity with the use of data messaging. Locate resources using GPS or dispatch tasks and monitor status – all through SDS messaging.

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Enhanced Operations Management

Dimetra IP Compact can increase productivity and efficiency of resources with a resultant increase in competitiveness. A comprehensive range of features allow more effective management of resources with the flexibility to cope with almost any situation

- Groups and Individual Calls allow communication on a one-one or one-many basis
- Dynamic Regrouping (DGNA) enables new user groups to be create to meet operational needs, ideal for use in constantly changing operations such as airports and other transportation sectors

Increased Security to Protect Information

Whether a commercial business or public safety organisation, security of information and communications is critical to operational success. Dimetra IP Compact solutions offer a comprehensive range of features to meet almost any requirement.

- Dimetra IP Compact TETRA solutions offer the inherent security of digital communications to protect sensitive commercial information
- For mission critical users including public safety requirements, Dimetra IP Compact support a wide range of services including Air Interface Encryption, high level End-End encryption as well as Crypto Key Management solutions for effective management of your secure radio network

Increased Safety for Users

You most valuable resource is often your staff and Dimetra IP Compact solutions will enhance operational safety through its integrated voice and data capabilities.

- Emergency calls, giving priority to users in need of urgent support
- Location reporting through integrated GPS receivers in Motorola terminals using TETRA Short Data services
Mission critical TETRA for public and private enterprises

Core Voice Rack
Instantaneous, high-quality voice communications with one-to-one and group calling capability are essential for any operational and critical communications solution. The Dimetra IP Compact Voice Rack delivers the full suite of Motorola’s core TETRA voice services in a small, yet powerful rack/server configuration that can run multiple processes and delivers call set-up times well below 500 millisecond. The enhanced RF coverage and spectrum efficiency of Motorola’s TETRA base stations, together with distributed switching for network resilience are the hallmarks of Motorola’s TETRA voice services.

Enhanced System Rack
Dimetra IP Compact’s Enhanced System Rack provides a platform designed to meet both current and future communication needs. The scalable architecture enables you to deploy a solution to meet your current operational requirements and when the time is right, add new services or expand your coverage as your business and requirements grow. The Enhanced System Rack supports a wide range of services from telephony and voice recording, through to data services such as Short Data (SDS) for messaging, location and other services, and Packet Data (Single-Slot & Multi-Slot) for higher bandwidth connectivity, enabling rich applications to enhance productivity and access information in the field. Further modules include Security (Authentication and Encryption) to protect information and access to your network, and System Redundancy to enhance resilience to ensure ongoing communications.

“Dimetra IP Compact delivers a comprehensive, flexible solution and protects your investment with the promise of proven, reliable and comprehensive features”
Build a tailored solution
Motorola’s Dimetra IP Compact switch is at the core of the Dimetra IP communications solution and, together with other proven elements selected from the Motorola TETRA portfolio, form a complete TETRA network solution.

MTS2 and MTS4 TETRA Base Stations
Motorola’s MTS2 and MTS4 TETRA base stations leverage the very latest technology advances to deliver the most effective, efficient TETRA coverage available. Operators and users benefit from smaller size, lower power consumption and enhanced sensitivity – delivering seamless mobility and placing intelligence at the fingertips of users to ensure they make truly informed decisions.

MCC7500 IP Consoles
Our MCC7500 consoles extend IP communications into the control room, giving the dispatcher instant access to a powerful feature suite to manage and communicate with your radio fleet.

Motorola’s MCC 7500 Dispatch Console is specifically designed for Critical IP communication, meeting your demand for high availability and reliability of your radio dispatch network to protect, prevent and respond. The MCC 7500 Dispatch Console is designed to help reduce your total cost of owning a robust, reliable dispatch solution, without compromising on the high quality you expect from Motorola.

Radio Terminals
Motorola’s comprehensive range of TETRA terminals provide flexible options that meet mission critical communications needs – whatever the requirement. Radios are smaller yet robust, more ergonomic and user-friendly, with feature sets including alpha-numeric key pads, text capabilities and colour displays. Motorola innovations include a cellular-style handset, the industry’s first TETRA PDA and the TETRA modem.

Network Planning & Services
Support focuses on operation and maintenance of systems delivering peak performance, both technological and operational, to maximize the efficiency of your networks.

Integration includes the design, planning and deployment of new systems and enhancements.

Applications provide optimal value-creating solutions, delivering and managing innovative and highly personalized end user services, content and multimedia.

Managed Services offer out-tasking and outsourcing options for your network operation that can help better manage operating costs, free up resources, provide access to world-class capabilities and R&D programs, allowing you to focus on your core business and customers.