

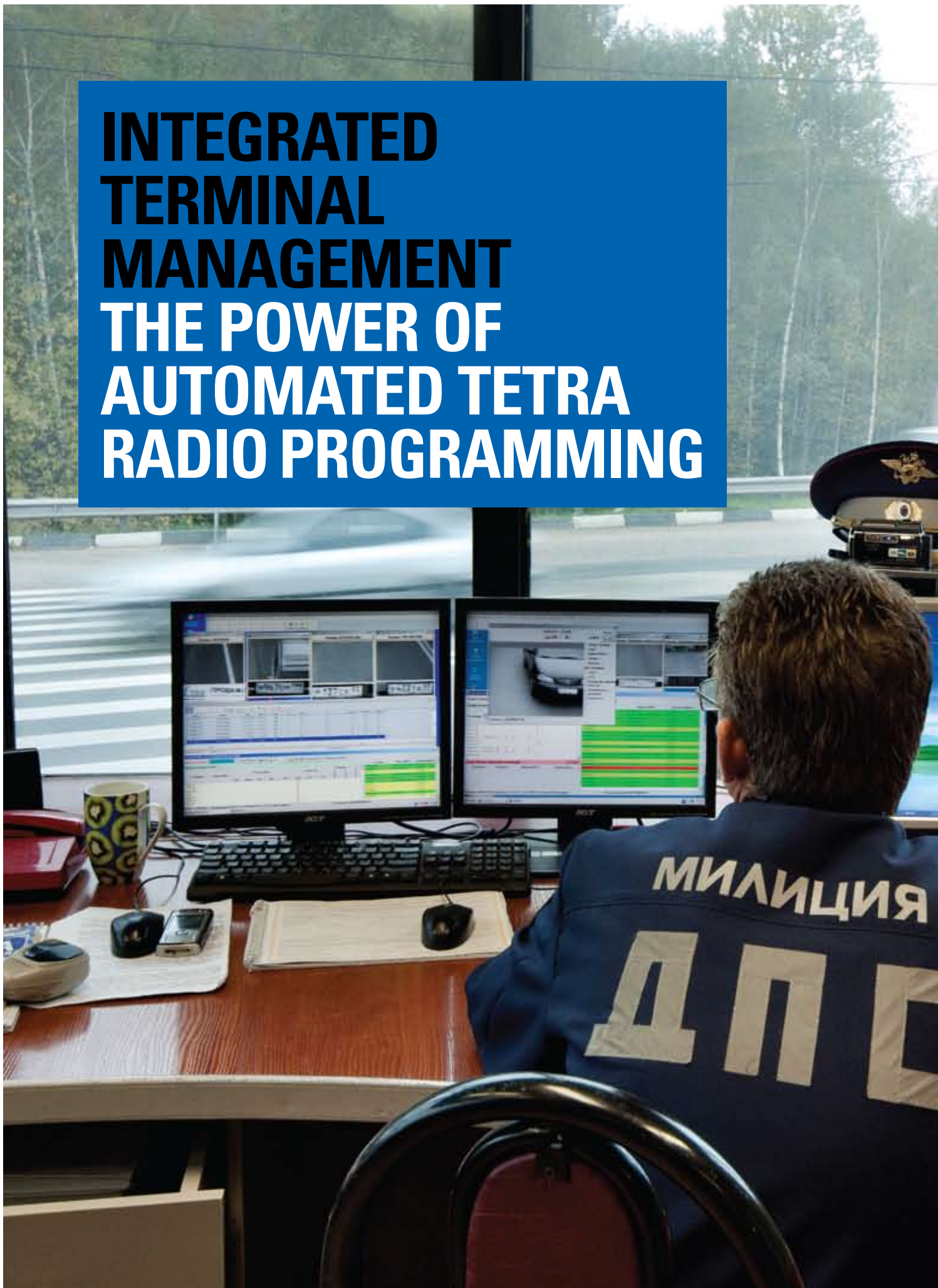
INTEGRATED TERMINAL MANAGEMENT



**THE POWER OF
AUTOMATED TETRA
RADIO PROGRAMMING**



INTEGRATED TERMINAL MANAGEMENT THE POWER OF AUTOMATED TETRA RADIO PROGRAMMING





CONSIDER THIS A TETRA COMMUNICATIONS SYSTEM FORMS THE BACKBONE OF YOUR ORGANISATION'S CRITICAL OPERATIONS

You are the communications manager and your job is to ensure that radios stay up and running – 24 hours a day, 7 days a week. Right now, your radio management staff are using Customer Programming Software (CPS) tools to maintain the radios. It used to take the team a couple of days to manually program the entire fleet, when there were just 100 radios in the field. Now, with more than 4,500 radios to look after, it's taking you months. It's also disrupting operations because mobile workers have to return their radios to a workshop to get them updated. You sometimes even have to allocate spare radios to minimise the disruption to work shifts.

We think there is a smarter way to manage radios. Our system can let you cost-effectively program an entire fleet of radios and achieve a return on investment in less than one year together with a saving of up to 70,000 minutes in staff time. It lets you audit all your radios quickly and efficiently – giving you the peace of mind that the right radio software and the right configuration settings are in place. Our system can do all this even while charging the radios. We call the system Integrated Terminal Management (iTM) for Motorola TETRA radios.

¹ Estimated typical yearly savings in staff time for a fleet size of 4,500 radios.

LESS THAN 1 YEAR

JAN

FEB

MAR

APR

MAY

JUN

JUL

AUG

SEP

OCT

NOV

PAYBACK



WHAT IS IT COSTING YOU?

FIND OUT WHAT YOU COULD SAVE WITH
ITM USING OUR SAVINGS CALCULATOR AT
BUSINESS.MOTOROLA.COM/TETRA/ITM-ROI/INDEX.HTML

A SMARTER WAY TO MANAGE RADIOS

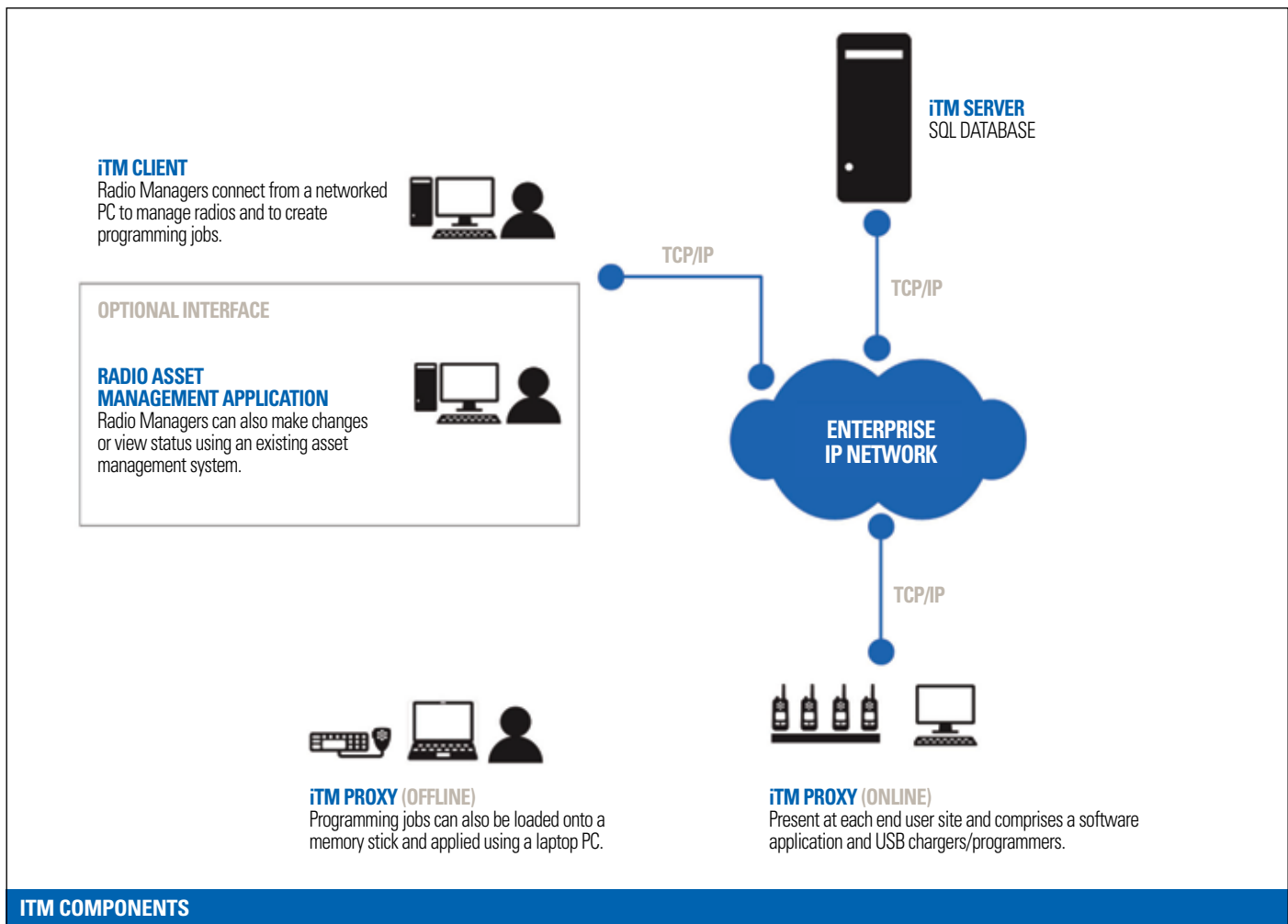
In multi-site organisations, it is often practical to establish radio programming stations at different locations to reduce staffing costs and to minimise disruptions to business operations. With iTM, you can greatly reduce operational expenses by minimising the need for trained radio management staff to travel to carry out scheduled or day to day radio management. With iTM, radio users will have much less need to take their radios back to a designated place for radio management or software upgrading. With its built-in bulk radio programming facilities, the system lets you minimise human intervention and in so doing transforms the efficiency of your fleet management operations.

Now, standard practice requires shift workers to return their radios to a programming station during a pre-defined time period. What often happens, though, is that shift workers fail to return their radios within their allocated time slots. In some cases, workers are unable to return their radios due to unforeseen circumstances and have to be rescheduled. Such scheduling issues result in the reduced productivity of your radio management operations.

With iTM, you can avoid these issues and dramatically increase the productivity of your radio management staff. That's because iTM allows you to create and schedule radio programming jobs for multiple sites in advance and from any convenient location. With iTM, radio programming takes place automatically, once handheld radios are placed in their charging cradles. This minimises disruption to field operatives that are accustomed to recharging their radios at the end of work shifts.

STREAMLINED ASSET MANAGEMENT

How does iTM do this? An SQL database forms the core of the iTM system and provides a robust platform for managing radios. The database keeps track of configuration data, feature contents and programming status for your entire radio fleet. So that you can optimise your investment, we've now made the database even more scalable, supporting small fleets as well as larger fleets with up to 150,000 radios.



THE POWER OF AUTOMATION

ACTIVATING FEATURES LIKE GPS ACROSS AN ENTIRE FLEET OF RADIOS CAN BE DONE IN A FEW SIMPLE STEPS, HELPING YOU MAXIMISE STAFF PRODUCTIVITY.

iTM's Program Radio Wizard helps you keep manual intervention to a minimum. An integral part of the user friendly iTM Client application, the Wizard lets the radio manager save time and money by automating tasks such as configuration changes and firmware upgrades from any convenient location that has a network connection.

As we all know, mistakes tend to creep in as tasks get repetitive. Errors introduced while carrying out repetitive programming tasks can affect critical operations and even the safety of field staff. With iTM you can use pre-prepared programming templates to replicate configuration settings across a batch of radios and minimise errors. You can also trace back through the programming history in the event that something unexpected happens.

INTRODUCE NEW CAPABILITIES FASTER

Program Radio Wizard also makes it easier to activate optional software licensed features across an entire fleet. With this tool, activating features like GPS across an entire fleet of radios can be done in a few simple steps, helping you maximise staff productivity.

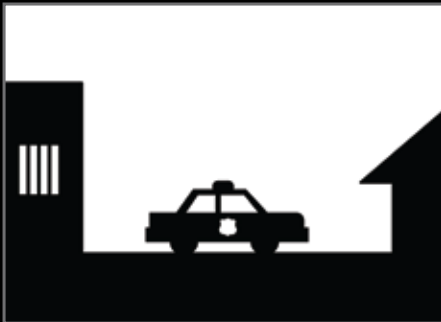


1**CREATING A SCHEDULED PROGRAMMING OPERATION****iTM CLIENT****08:35**

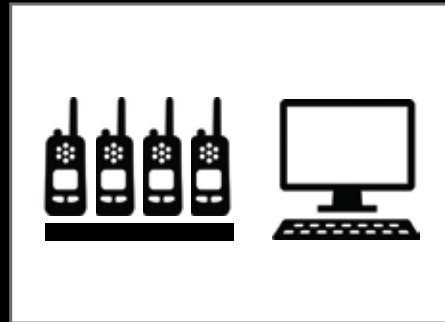
JOE STORES A SET OF CONFIGURATION CHANGES
IN A TEMPLATE FOR THE PATROL TEAM

iTM SERVER**08:38**

JOE SCHEDULES A PROGRAMMING JOB TO LOAD THE
TEMPLATE ONTO THE PATROL TEAM RADIOS AT 00:30

2**SCHEDULED PROGRAMMING EXECUTION****iTM PROXY****00:00**

AT THE END OF THEIR SHIFT PATROL TEAM PLACE
THEIR RADIOS IN CHARGERS LINKED TO iTM PROXY

iTM PROXY**00:30**

AT 00:30 THE iTM SERVER SEND THE
CONFIGURATION CHANGES TO THE iTM PROXY

OFFLINE PROGRAMMING

Sometimes the need arises to program a radio in a remote location where there is no network connection. This is typically the case with vehicle-fitted mobile radios. It can also occur when it is not practical to connect local computers to the iTM server. iTM lets you handle these situations in a couple of ways.

One way is to prepare the programming job from an iTM Client PC and then load it onto one or more iTM Proxy PC's. You then set the proxy PC(s) to Offline and you're ready to take it to the remote location to program radios. When the programming is finished you reconnect the PC's to the iTM Server at a convenient time to report back.

An alternative case is to create the programming job and load it onto one or more protected memory sticks. The memory stick then lets you execute the programming operation through any PC that has the iTM Proxy software installed.

iTM IN THE ENTERPRISE

SCALED SOLUTION OPTIMISED INVESTMENT



CPS^{PLUS}



iTM ONE



iTM ENTERPRISE

CPS^{PLUS} BUILT-IN



SQL DATABASE



PROGRAM RADIO WIZARD



TRACES NETWORK DIAGNOSTIC DATA



OPERATION OVER IP NETWORK



CPS^{PLUS} : A plug in part of iTM that lets you make radio or template level setting changes. You can use it as a stand-alone programmer when you have no network access or no suitable, scheduled programming operation at your location. For more details on the latest functions see www.motorola.com/tetra.

iTM ONE: An all in one programming tool for use on a single PC. It brings versatile reconfiguration, upgrade and feature activation. With the built in SQL database, keeping track of the changes made to the radio fleet is made very simple. As your capacity requirements increase, you can easily upgrade it to iTM Enterprise.

iTM ENTERPRISE: iTM Enterprise is a true client-server product and operates over an IP network. Ideal for organisations with dispersed end user sites, iTM Enterprise enables centralised radio management over an IP network. This networked version of iTM is specifically targeted at deployment in the end user environment to drive real cost savings and efficiency gains. Furthermore, to align with different operational models, you can assign to different users, different access priorities and access capabilities. For example radio managers might be allowed to perform the full range of programming operations whereas field operatives might be restricted to modifying only a specific set of radio parameters such as talkgroup settings.

WITH THE PORTFOLIO OF PROGRAMMING SOLUTIONS, YOU CAN CHOOSE THE iTM CONFIGURATION THAT IS BEST SUITED TO YOUR OPERATIONAL NEEDS.

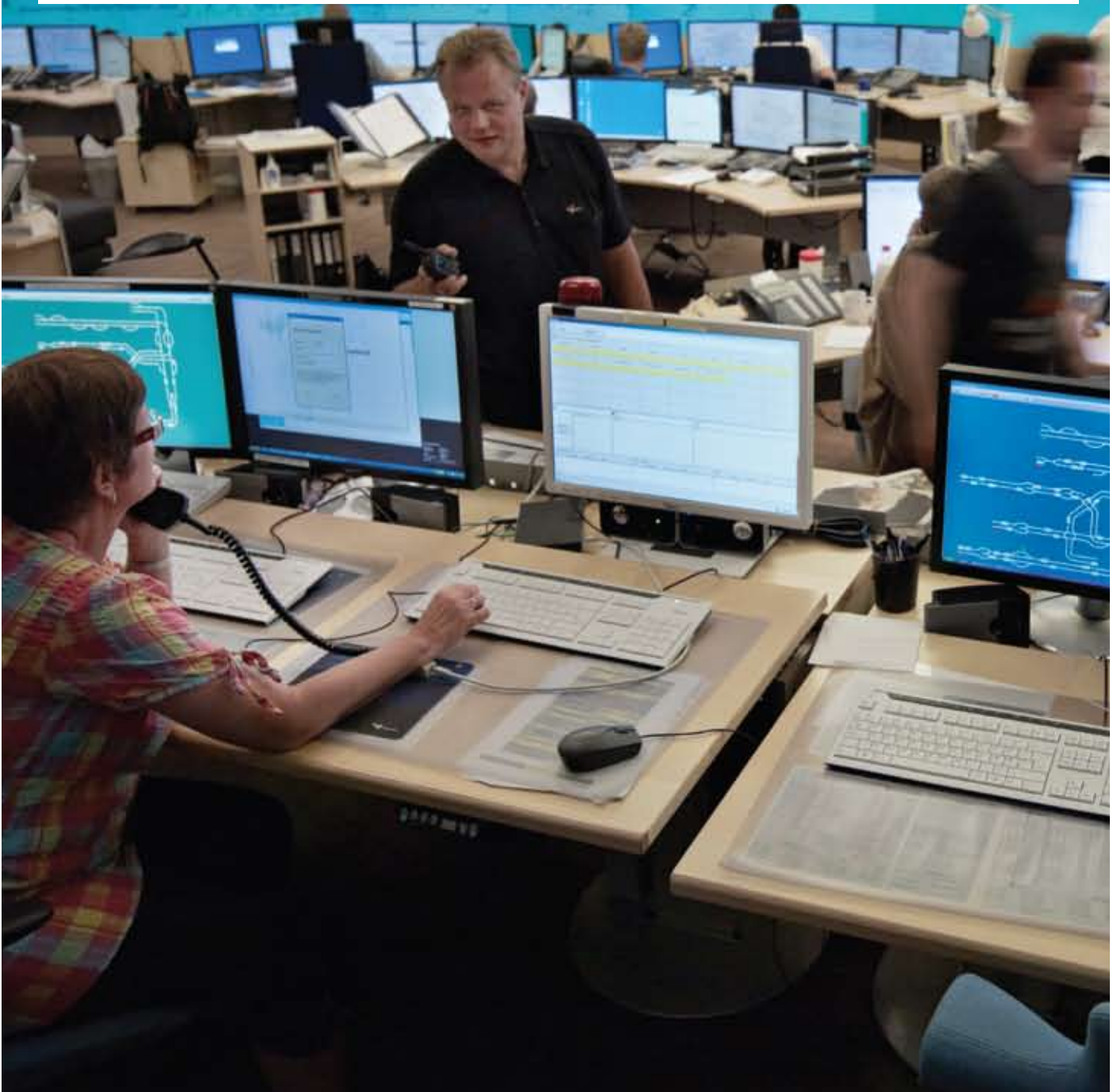
THE CORE MODULES OF iTM

SQL DATABASE: An integral part of the iTM server, it stores the identities of all your radios, their codeplugs, their software and tracks the status of programming. The iTM Client or (optional) other vendor radio asset management systems can also interact with the database during programming and reporting activities – for example when radio managers need to check the status of programming operations, load or check software versions and change or check radio configurations.

PROGRAM RADIO WIZARD: Designed to automate radio management workflows, it lets you carry out multiple operations in a single programming session. This makes it simple for you to perform bulk programming operations that include any combination of software upgrades, reconfigurations and licensed feature activations.

TRACES DIAGNOSTIC DATA: Your Motorola TETRA radios are capable of logging diagnostic data on network coverage. The iTM system lets you extract this data for analysis using the Motorola TRACES application. Reports generated by TRACES help you visualise network issues and enable you to rapidly identify failures, trouble spots and performance challenges. For further information on TRACES, please contact your Motorola representative or visit www.motorolasolutions.com/tetra.

OPERATION OVER IP NETWORK: Through this architecture, radio records, configuration data and software are held on the central iTM server and downloaded to radios via iTM Proxies only when needed.



INTEGRATED WITH YOUR BUSINESS APPLICATIONS

iTM has been designed from the ground up to be an enterprise application. Using the XML interface, you can create scheduled programming operations from any of your existing asset management applications. You can also export details of a programming operation via XML or database view. Alternatively, you can use the SQL based ODB interface to access radio programming records. This can be used to create a streamlined asset management system that combines programming creation and reporting.

We have also made keeping iTM software up to date very simple. Using Microsoft SMS compliant tools, you can quickly and efficiently deploy and manage iTM software on any remote programming station (iTM Proxy), from a central location.

What if you need to notify field workers about your radio management plans? Easy. An optional feature in the iTM Client application lets you efficiently dispatch notifications via email to affected users.

INTEGRATED RADIO PROVISIONING AND MANAGEMENT

As you expand the size of your fleet, information about new radios will need to be added to the iTM database. We've created a software interface between iTM and the Motorola MiBAS application to simplify and streamline this process. By linking your iTM system to MiBAS, you can implement an integrated system that supports radio provisioning in addition to radio management. MiBAS is available for TETRA networks that are based on Motorola Dimetra IP.

INTEGRATED ONLINE FEATURE ORDERING

You can order and upgrade your iTM system, including buying the latest radio features via Motorola On Line, if you're a registered customer or distributor².

²The Motorola On Line service is not applicable to all regions. Please check with your local Motorola Solutions sales representative.

A SMART INVESTMENT

Your existing investment in PC hardware need not go to waste. Provided existing PC hardware meets the relevant system requirements, you will be able to run iTM Client and server applications on them³ - and accelerate the return on your iTM investment.

³For further details on iTM system requirements, please visit motorolasolutions.com/tetra.

A COMPLETE ASSET MANAGEMENT SOLUTION



“INSTEAD OF HAVING THE CUSTOMERS HAND THE RADIOS BACK TO THE DEALER, WE CAN MANAGE THE RADIOS REMOTELY”

Says Ingeniero Trillo, Operations Director for Servitron, Mexico.

Scan this code with your smartphone to see a video showing how iTM is streamlining radio management for Servitron.



BEHIND EVERY STEP THE POWER OF MOTOROLA

To support different operational models, we've designed flexibility into iTM. Whether its implementing centralized device management for multiple autonomous user groups or defining different access priorities for different users, the iTM system has been designed with sufficient flexibility to cope.

To ensure that you get the most optimized device management arrangement, you can call on our extensive services offering. Our team of experts can help you assess your operational requirements and tailor an integrated terminal management solution that fits your specific needs. As well as offering world-class operational centres to keep your critical operations online, our experienced teams are able to implement an integrated radio asset management solution – leaving you to focus on running your business.

MAXIMISE PRODUCTIVITY THROUGH AUTOMATED RADIO MANAGEMENT

Managing thousands of radios takes a huge effort. It's also costly in terms of staffing. With iTM, you can circumvent these challenges by automating your radio management processes. iTM helps you maximise your operational efficiency while achieving a fast payback on your investment.

GET STARTED TODAY

Ask your Motorola representative for a free iTM trial license and find out how iTM can transform your radio management processes.

For further information about iTM, please contact your Motorola representative or visit www.motorolasolutions.com/TETRA

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ITM_Brochure_UK_(01/12)



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