



TETRA Services Portfolio

Service Descriptions

MOTOA⁴TM

INTRODUCTION

Motorola offers a comprehensive and flexible portfolio of services to ensure peak performance, cost effective operations and high availability throughout the full lifecycle of the system. Indeed services make up a key part of Motorola's overall MOTOA4™ portfolio. MOTOA4 is Motorola's Mission Critical portfolio and enables us to deliver complete solutions to the mission critical market. The services offered leverage Motorola's global services expertise across multiple technologies and are designed to deliver Technology That's Second Nature™ by enabling organisations to focus on their mission, not the technology.

This brochure details the many services Motorola offers including:

- **Integration Services** - from initial concept through system planning and design to implementation and integration
- **Support Services** - ranging from standard support services to operations & maintenance, training, optimisation, security and network management services
- **Managed Services** - designed to provide the breadth and flexibility to meet our customers' requirements.

All services are backed up by industry leading tools and processes and can be delivered as individual elements or as a complete package. The services are delivered by our extensive service organisation which combines the benefits of local, trained and qualified service personnel with extensive R&D resources and centres of excellence around the world.

All services are available to support our TETRA customers. Most services are also available to support other technologies such as Motorola's APCO P25 and Wireless Broadband solutions. Please contact your account representative for details.

INTEGRATION SERVICES

Motorola offers a full portfolio of design planning and integration services from initial concept through system planning and design to implementation and integration. These services ensure that whatever your requirements, Motorola can design and deliver a high performance and cost effective solution to meet your needs.

SYSTEM PLANNING AND DESIGN SERVICES

Coverage and RF Prediction Service

Motorola offers a fully comprehensive coverage planning service. The service specifies the number of sites required to meet the customer's coverage requirement, advises how the available frequencies can be optimally used, provides realistic coverage (and frequency re-use) maps as well as detailing site lists and allocating carriers. Motorola can also provide support in identifying suitable sites and ensuring that they are ready and prepared for installation. The service is provided by Motorola's planning experts backed by our proven planning tools and ensures the network is designed to cost effectively meet customer requirements both now and in the future.

Voice and Data Capacity Planning Services

Using proven tools, Motorola's experts can predict the required system capacity for voice and data communications under various loading conditions. The results are then used to recommend the number of carriers required as well as appropriate parameters and features to ensure system availability and optimise performance.

System and Site Audit

A System and Site Audit provides information about existing sites as well as gathering overall system configuration information. This then forms the basis for recommendations on system architecture, work required to prepare radio sites, system upgrades and migration plans to ensure optimal network and site performance.

Security and Reliability Concept and Design Services

Based on the customer's requirements and our experience from other projects, Motorola can design and plan communications systems to achieve high levels of integrity and security. Redundancy concepts, disaster recovery and fallback solutions are vital in today's communications systems and require thorough planning and design.

System Implementation Planning

Based on Motorola's vast experience, Project Managers and Systems Engineers help to plan system implementation or migration from existing to new systems. This minimises the technical, financial and operational risks for the customer. Detailed responsibility matrices and implementation plans are generated as part of this service.

Customer Specific Applications and Integration Planning

Motorola can help identify, deliver and integrate the best applications and supplementary solutions to meet the customer's objectives. The service includes the generation of equipment and interface specifications.

Pre Sales Consultancy

Motorola also has the expertise to offer a range of additional planning and design services on a consultancy basis. These include: Detailed System Design; System Sizing; Technical Support for System Concept; Customer Specific Feature Requirement Analysis; Inter Switch Traffic Sizing and Antenna Design.

BUILD, INTEGRATION, COMMISSIONING & SYSTEM TEST SERVICES

System Integration and Factory Acceptance Testing

Motorola offers a professional and flexible acceptance test process to enable the customer to verify the delivered functionality. Test cases can be performed both at the factory, to ensure system readiness and during system integration. They include either a minimum or enhanced set of standard pre-defined Motorola test cases or alternatively customer specific test cases. Third party subsystems such as microwave links and telephone subsystems can also be tested in conjunction with the core communications system infrastructure.

Installation Services

Installation Services provide the technical resources to install customer's communication equipment including fixed network equipment sites, control centre operator positions, and subscriber equipment. It also encompasses system add-ons and individual unit replacements.

Field System Integration and Test

Motorola offers experienced field engineering and project management support to commission and test the communications system at the customer's premise. This includes the checking of installation, initial turn-on and configuration of the system. To verify system functionality and performance, a system acceptance test can also be performed. This ensures all committed functions are fully operational.

Project Management

Motorola offers a complete project management solution. We offer total project ownership including management of third parties and subcontractors from project inception to final customer handover. Full adoption of project management best practices helps ensure on time and on budget delivery as does our commitment to quality including project and defect tracking and traceability matrices.

Post Sales Consultancy

Motorola also has the expertise to offer a range of additional integration services on a consultancy basis. These include: System Interface Specification and Support; Migration Planning; Post-Sale Technical Support; Data Application Support; RF Consultancy; Drive Tests & Coverage Verification; Customer Fleet Mapping Generation; Technical Support for Change Orders and Subscriber Profile & Accessories Support.

SUPPORT SERVICES

Motorola offers a comprehensive and flexible portfolio of support services to ensure peak performance, cost effective operations and high availability. Solutions range from standard support services to operations & maintenance, training, optimisation, security and network management services. A service package can be customised to meet individual customer requirements including clearly defined service level agreements.

ENHANCED SYSTEM SUPPORT

The following services are provided as a standard package for Dimetra IP* systems during the first year and are available on an optional basis thereafter.

Technical Support

Technical consultants in Motorola's System Support Centres provide remote telephone support to resolve issues and restore the system as quickly and efficiently as possible. This team of highly skilled professionals work with fault diagnostics tools, simulation networks and fault database search engines to swiftly diagnose and restore the customer's network.

Hardware Repair and Return

Hardware repair and return services are provided through central repair centres and are provided for both infrastructure and subscriber units. Repair services provide immediate access to Motorola support. All repairs use the latest repair equipment, fully certified engineers and Motorola original parts to ensure parts are returned to original factory specifications.

Advance Exchange*

This service is offered for field replaceable units (FRU) for system critical items. The customer sends the faulty FRU to Motorola for repair while Motorola simultaneously sends a replacement FRU for immediate installation. This enables the customer to optimise spares stocks kept on site whilst avoiding the need to wait for the FRU to be repaired before resuming normal operations.

Software Subscription Agreement*

This service provides the customer with the latest software baseload release including support of Motorola supplied 3rd party software to keep the system current. Upgrade support is also provided in the form of a customer specific upgrade implementation plan to proactively manage and extend the lifetime of the system. Upgrade implementation support may also be purchased as an optional extra. The service can also provide notifications of new optional features and functionality which may also be purchased separately.

Customer Support Manager

Motorola provides a support team and process to meet customer requirements led by an experienced Customer Support Manager who will be responsible for the delivery of the agreed Service Level Agreement.

* Service packages vary for Dimetra IP Compact and Dimetra IP Micro systems. Please consult your account representative for details.

TERMINAL SUPPORT SERVICES

Terminals account for a significant proportion of overall expenditure both in terms of the initial capital outlay and their ongoing maintenance and management. Motorola offers a full range of supporting services for terminals to ensure maximum and cost effective performance to meet the needs of our Mission Critical customers.

Terminal Repair and Support Packages

To reduce the total cost of ownership, Motorola offers a choice of terminal support packages that provide fast turnaround times, prompt telephone technical support and multi-year coverage. These packages are designed to minimise spares holdings, resolve customer issues quickly, and provide through life support to ensure you get the most out of your terminals. The terminals are expertly repaired to manufacturing specifications using the latest tools and with strict adherence to Motorola engineering procedures. The repairs are fully certified and are offered with committed Service Level Agreements (SLAs) including turnaround times.

Advance Replacement Service

Our advance replacement service provides a predetermined number of spare terminals that can be used to replace a faulty unit whilst it is being repaired, ensuring that your end users are always able to communicate.

Battery Change Out and Management

Service includes the planned replacement and management of batteries to ensure the maximum effectiveness of your TETRA terminals.

Fleet Mapping

This service includes initial set up and/or ongoing management of fleet maps targeted to maximise benefits for your users based on system resources and features.

Terminal Provisioning

Available on new terminals, the service can include provisioning of customer specific code plug information as well as secure key management.

Installation Services

For terminal installation in all types of vehicles we offer a range of service options that extend from mobiles and antennae, to full turnkey solutions.

Subscriber Migration Service

Motorola can help minimise downtime and ensure a smooth transition if a major upgrade or migration is required (for example from analogue to digital). The service includes the initial consultancy to identify requirements as well as the execution of the migration itself.

OPERATIONS AND MAINTENANCE SERVICES

Field Support

Motorola provides an extensive range of field support services including

- 1st and 2nd line field support. On site support to troubleshoot and provide fast resolution of problems within defined service level agreements
- Preventive Maintenance: Preventive maintenance services provide operational test and alignment, to ensure the equipment meets original manufacturer's specifications
- Emergency field support. A skilled engineer is made available to provide advice and take actions to resolve a technical problem
- Specialist field support. A specialist engineer (an NMC or MSO specialist for example) is placed on site for extended periods of time. Ideal for major projects

Spares Management

Spares Management is a cost effective solution to optimise and manage your spares for Motorola supplied equipment. We work with the customer to suggest appropriate stock levels of spares, manage logistics, and also track how frequently spares are used to ensure the maximum return on investment. The service is available to support both infrastructure and terminals.

System Health Check

The system health check is performed periodically by a team of highly skilled experts and gives a snapshot of the technical status of the system. This proactive service provides a comprehensive report of system elements, identifies operational weaknesses, and delivers a prioritised list of recommendations to keep the network running smoothly.

TECHNICAL TRAINING SERVICES

Motorola has an extensive range of flexible learning solutions that are designed, developed and delivered specifically for both the end users and the technicians who operate, manage and maintain the network. The training portfolio comprises a blend of instructor-led classroom offerings and computer-based training packages (eLearning). Training solutions may be customised to meet specific customer requirements. Motorola is an accredited training provider of the Institute of IT Training.

TETRA Terminals Computer-based Training

Motorola offers both generic and customised multilingual eLearning training solutions for all of its TETRA terminals. These intuitive and interactive computer-based training modules may be accessed remotely by end users. These self-study modules may serve as either the primary training vehicle for end users or as a refresher course to ensure users are always up to speed on the newest terminal operational features. eLearning training modules are sold on a licensed basis and provide a cost-effective means of training a few or many end users.

Instructor-led Training

Instructor-led classroom training is available for both network infrastructure and terminals. These training modules are delivered at Motorola Technical Training Centres on dedicated training systems. Subject to having a suitably equipped environment, the instructor-led courses may also be delivered at a customer location.

Training Consultancy and Needs Analysis

Training consultancy and needs analysis is available to assist customers in determining the optimal training environment and curriculum for their specific customer requirements. This service utilises interviews to analyse current skill sets and intended job roles to provide the basis of a detailed training plan and recommendation for your organisation. This service is especially beneficial to customer organisations that will be deploying a Motorola solution for the first time as it will ensure that the right training is delivered to the right person at the right time.

PERFORMANCE & OPTIMISATION SERVICES

Performance Management Services

Expert consultancy and reports based on recommended Key Performance Indicators that utilise real-time network data to benchmark system performance. Using the information provided by the reports, customers can help guide network activities for effective capacity planning, trend analysis, service level reporting and network performance optimisation. This helps make effective decisions to optimise the usage of your network to best meet business needs and prevent misuse of critical resources.

Intelligent Optimisation Services

This service provides expert analysis to optimise network coverage and capacity using measurements derived from the actual end users' terminals and network based data. The service can include a consultancy engagement as well as a one-time or ongoing optimisation service which not only recommends the changes required but also implements them on the network. The service provides a highly cost effective way of ensuring optimal coverage, compared with traditional drive testing, thereby improving end user experience and mission critical availability.

Special Event Planning and Monitoring

Measures and analyses the system to ensure availability during major events, when adding large numbers of users or for emergency simulations. The service provides consultancy and system planning and monitoring throughout the event as well as pro-actively identifying issues prior to its taking place.



NETWORK MANAGEMENT SERVICES

Network Monitoring

Flexible solution that can provide either continuous (7x24x365) or out of hours remote network monitoring. The solution uses secure access and authentication as well as pre-defined procedures and alarm events for problem escalation and resolution. As well as providing a cost effective solution for ensuring network availability, it also provides an effective disaster recovery solution.

Alarm Management

Motorola's Alarm Management service is a system wide solution that highlights measures that can improve network stability and availability. Reports are normally generated on a monthly basis summarising alarms and providing actionable recommendations to address root causes of alarms. Through regular tracking and managing of alarms, the impact of planned changes can be assessed and measured. Resources can be prioritised and deployed more effectively to resolve issues affecting the network and to reduce troubleshooting times. The end result is improved network performance through alarm management.

Alarm Correlation

The Alarm Correlation service is a consultative engagement that provides customer-specific system recommendations to implement alarm correlation rules based on expert system knowledge. Incoming alarms are evaluated using advanced algorithms that analyse the root cause of the failure to nest them under a single meaningful alarm. This means the customer sees a reduced number of alarms making the system easier to support. It also makes it easier to identify the underlying cause of the failure and therefore quicker to find the right solution.

NETWORK SECURITY SERVICES

Motorola has a full suite of security services for Mission Critical networks which can also be expanded to cover the customer's IT networks.

Security and Reliability Concept and Design Services

Based on the customer's requirements and our experience from other projects, Motorola can design and plan communications systems to achieve high levels of integrity and security. Redundancy concepts, disaster recovery and fallback solutions are vital in today's communications systems and require thorough planning and design.

Pre-Tested Software Security Service

Pre-Tested Software Security Service entitles customers to receive the latest anti-virus definitions and intrusion detection signature files that have been pre-tested on a Motorola test system. The service provides a cost effective way of preventing attacks by keeping the network updated with the latest security updates, while also pre-testing for anomalies.

Security Assessment and Evaluation Services

The security assessment service is a consultative engagement that provides a comprehensive security analysis and detailed report of the findings of the Motorola security services team. We find the security holes and weaknesses, relate them to potential impacts to the business, provide a prioritised roadmap identifying what needs to be done to close the gaps, and deliver the findings and recommendations.

MANAGED SERVICES

Motorola offers a complete portfolio of Managed Services designed specifically to meet the needs of our Mission Critical customers. Our services offer an attractive and compelling alternative to direct procurement for organisations that are concerned with: improving performance; reducing total cost of ownership; maximising work force flexibility; accessing best in class resources for managing their network and effectively managing long term risk and budgets. All services are offered to jointly defined Service Level Agreements (SLAs) and tracked against Key Performance Indicators (KPIs).

Out-Tasking/ Out-Sourcing

Motorola offers a range of out tasking services whereby a particular service or set of services is handed over to Motorola to deliver on an ongoing basis, to an agreed service level and at Motorola's risk. Out-Sourcing is different from out-tasking in that Motorola can also take over the assets (people and equipment) in the operation of an existing network, again enabling customers to focus on their core activities.

Build, Own, Operate, Manage/ Transfer

An 'inception to retirement' option whereby Motorola builds, owns and maintains the system. Delivered to a pre-agreed price, timeline and benchmarks (e.g. system availability and call quality), turnkey projects remove risk and control costs during the deployment of Critical Communications networks. This enables organisations to focus on their core activities and entrust the system to an experienced partner. Once built there is also the option for the assets (people and equipment) to be transferred back to the customer or continue to be managed by Motorola, often as part of a consortium. This managed service solution is also available to existing customers.

Rental Services

Motorola can help minimise capital expenditures by providing terminals and infrastructure equipment for customers to rent out on either a short term (days, weeks, months) or longer term basis. For longer term requirements Motorola can also arrange leasing agreements. The service is particularly valuable for customers requiring access to additional terminals and or infrastructure capacity to support special events.

For more information please contact your local Motorola Authorised Dealer or Distributor



MOTOROLA

MOTOROLA and the Stylised M Logo are registered in the US Patent & Trademark Office.
All other product or service names are the property of their respective owners.
© Motorola, Inc. 2009. All rights reserved.

TETRA.SERVICES.PORTFOLIO-UK (05/09)

www.motorola.com

Motorola Ltd. Europe Middle East Africa, Jays Close, Viabes Industrial Estate,
BASINGSTOKE, Hampshire RG22 4PD, UK