2018
PRODUCT AND SYSTEM TECHNICAL TRAINING COURSE CATALOGUE

MOTOROLA SOLUTIONS EDUCATION SERVICES
EUROPE, MIDDLE EAST AND AFRICA

MOTOROLA *SOLUTIONS*

WELCOME

Choosing Motorola Solutions is only the beginning.

Next: Get trained on Motorola Solutions' latest innovations and improve your proficiency with our expanding training portfolio!

With versatile training solutions and best practices from our expert instructors and designers, you can increase the return on your technology investment throughout the product and system lifecycle.

Motorola Solutions Education Services provides your organisation one-stop shop, end-to-end training support: from needs analysis and consultancy to course development, customisation, delivery, and logistics.

Let us work with your team to ensure that your organisation configures, operates and maintains your products and systems to effectively and efficiently meet your specific needs.
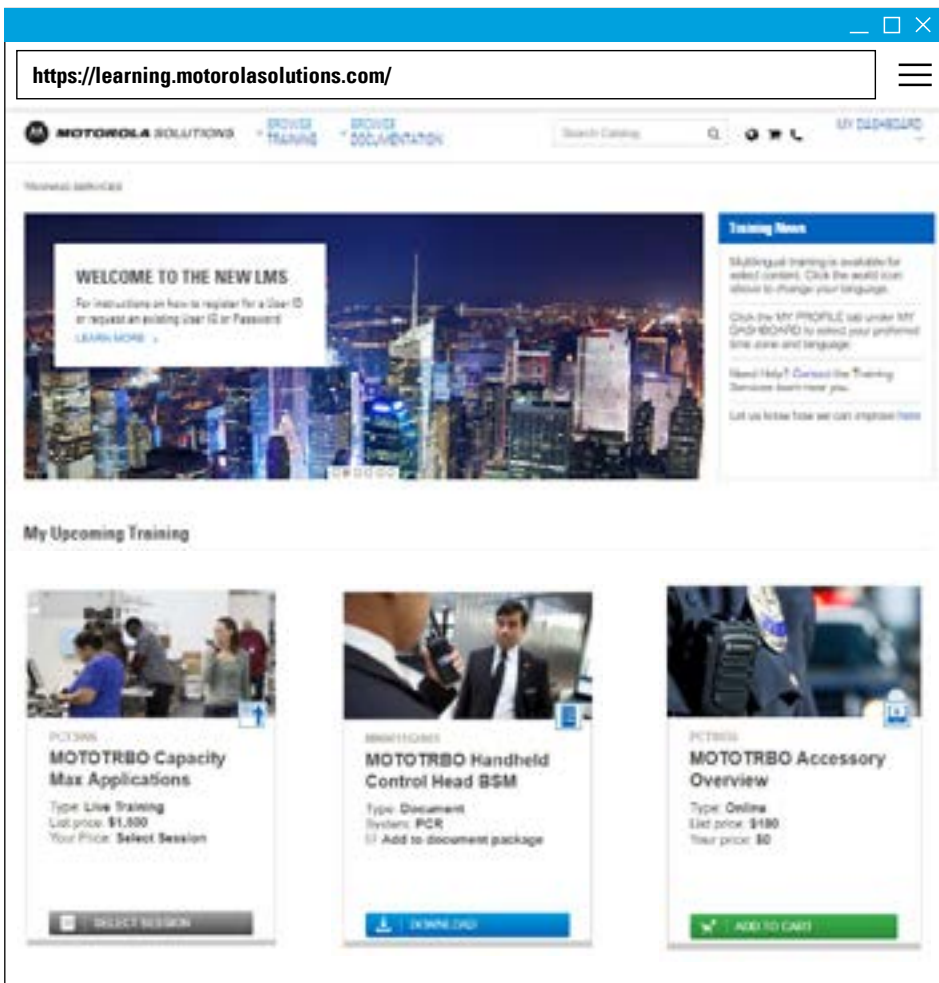
CATALOGUE
TABLE OF CONTENTS

Learning &
Performance Institute
Accredited Learning Provider

Learning &
Performance Institute
Authorised Qualification &
Assessment Centre

GENERAL INFORMATION

A NEW INTERACTIVE LEARNING MANAGEMENT SYSTEM… DESIGNED FOR YOU!

USE THE SEARCH BOX OR FILTERS FEATURE TO QUICKLY AND EASILY SEARCH FOR TRAINING OR DOCUMENTATION

VIEW YOUR HISTORY AND UPCOMING TRAINING ON YOUR PERSONALIZED DASHBOARD

RECEIVE REMINDER NOTIFICATIONS OF UPCOMING TRAINING OR CHANGES TO YOUR TRAINING

EASILY LOCATE AND DOWNLOAD DOCUMENTS

KEEP UP-TO-DATE WITH TRAINING NEWS AND ANNOUNCEMENTS

GENERAL INFORMATION
For information on prerequisites and to register for courses visit the LMS at:
**LEARNING.MOTOROLASOLUTIONS.COM**

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

HOW TO REGISTER

THE LEARNING MANAGEMENT SYSTEM (LMS)

The LMS is your valuable resource to see the latest courses, descriptions, requirements, dates and locations.
If you are a Motorola Solutions Customer who already has a Motorola Solutions Login ID, you can go to the **Enrol in a Course** section for further instructions.
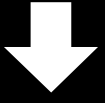
SET UP A NEW USER ACCOUNT AND PASSWORD

CREATE A MOTOROLA SOLUTIONS LOGIN ID:

- Visit: **https://learning.motorolasolutions.com**

- Click **LOG IN**

- At the bottom of the dialog screen **Click Register**

- Complete the required information on the form

- Click **Submit**

- A confimation email will be sent following your submission

- Additional instructions for activating your account will be provided by email in 1-3 business days

LOOK FOR THIS ICON THROUGHOUT THE CATALOGUE FOR EASY ACCESS TO THE LMS

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to
learning.motorolasolutions.com

TO ENROL IN A COURSE
(ONCE YOU HAVE AN LMS ACCOUNT)

ENROL IN A COURSE:

- Visit: **https://learning.motorolasolutions.com**

- Click on **LOG IN**

- Enter your Log In ID and Password and Click **LOG IN**

- If you have forgotten your User ID or Password, click **Forgot User ID** or **Forgot Password**

- Find a training course by clicking **Browse Training** at the top of the screen or use the **Search Catalogue** feature

QUESTIONS ABOUT YOUR ACCOUNT OR A COURSE?

Your help desk information can be located in the top, right hand corner of the catalogue pages. You can also **click here** to view the help desk contact information in your region.

GENERAL INFORMATION
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

TRAINING OPTIONS, POLICIES AND REQUIREMENTS

TRAINING OPTIONS

INSTRUCTOR-LED TRAINING

Resident training consists of regularly scheduled classes conducted at one of the Motorola Solutions Technical Training Centres. The centres are set up so students can immerse themselves in the subject matter, with limited distractions. They receive substantial time for hands on training that enables them to develop creative solutions for unique problems. Resident training includes a diverse customer base; therefore, the classroom equipment is modeled upon a standard configuration. In addition, some courses include media-based activities that are facilitated by the instructor. Advance registration is required.

ON-SITE TRAINING AT YOUR LOCATION

All course titles can be delivered at your location, taught by our knowledgeable instructor staff. For more information on our on-site delivery options, contact your Account Manager.

ONLINE SELF-PACED AND VIRTUAL CLASSROOM

Online Self-Paced learning allows you to gain foundational knowledge on a variety of topics using your own computer, at your own schedule. Virtual Classroom Learning offers scheduled instructor-led courses in an on-line virtual environment. Select courses from the recommendations listed in the Training Paths from each product area of the catalogue, or simply based upon your own personal need. Just look for courses with the Online Self-paced or Virtual Classroom icon.
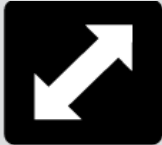

UNDERSTANDING THE ICONS

INSTRUCTOR-LED

ONLINE, SELF-PACED

OPTIONAL COURSE

VIRTUAL CLASSROOM

TEST

NEW

POLICIES AND REQUIREMENTS

CANCELLATION AND RESCHEDULING BY THE STUDENT

Customer cancellation or rescheduling made less than 30 days prior to the class start date will be subject to the full course tuition.

CANCELLATION AND RESCHEDULING BY MOTOROLA SOLUTIONS

Motorola Solutions reserves the right to change or cancel classes up to 10 business days prior to the class start date. You will be notified at that time of such change or cancellation.

PROFESSIONALISM

Students are expected to maintain professional conduct and dress at all times. Class dress is casual, but smart.

LAPTOP REQUIREMENTS

Some of our classes may require students to bring their laptops to the classroom so that they may utilise an electronic copy of the class material. Please review your enrolment confirmation email for specific requirements for your class.

TRAINING CONTENT AND STRATEGY DISCLAIMER

All of Motorola Solutions training classes are designed to support and align with the Motorola Solutions Service strategy for each product. This strategy may include a combination of (but not limited to) processes, procedures, recommendations, and instructor experiential advice which may involve repair, replacement, and or recovery of hardware, software, or firmware of Motorola Solutions products. The repair, replacement, or recovery of these products may vary from product to product. Motorola Solutions reserves the right to change the structure and content of all courses at any time.

GENERAL INFORMATION
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

HELPFUL INFORMATION

FOR QUESTIONS AND ASSISTANCE

Call the Education Services help desk at:
+44 (0) 203 0277 499
Monday – Friday,
9:00 a.m. – 5:30 p.m. Central European Time
or email us at:
training.emea@motorolasolutions.com

HOW TO MAKE PAYMENTS WHEN ENROLING IN A COURSE

HOW TO MAKE PAYMENTS WHEN REGISTERING

For your convenience we accept the following methods of payment:

- Credit Card
- Purchase Order

If prepayment is required to secure your registration, it must be received by Motorola Solutions 30 days prior to your attendance.

Contact the help desk above for assistance with payments and P.O. specifications.
All pricing listed is US dollars**.**

DOWNLOAD THE EUROPE, MIDDLE EAST AND AFRICA TRAINING SCHEDULE AND PRICE SHEET
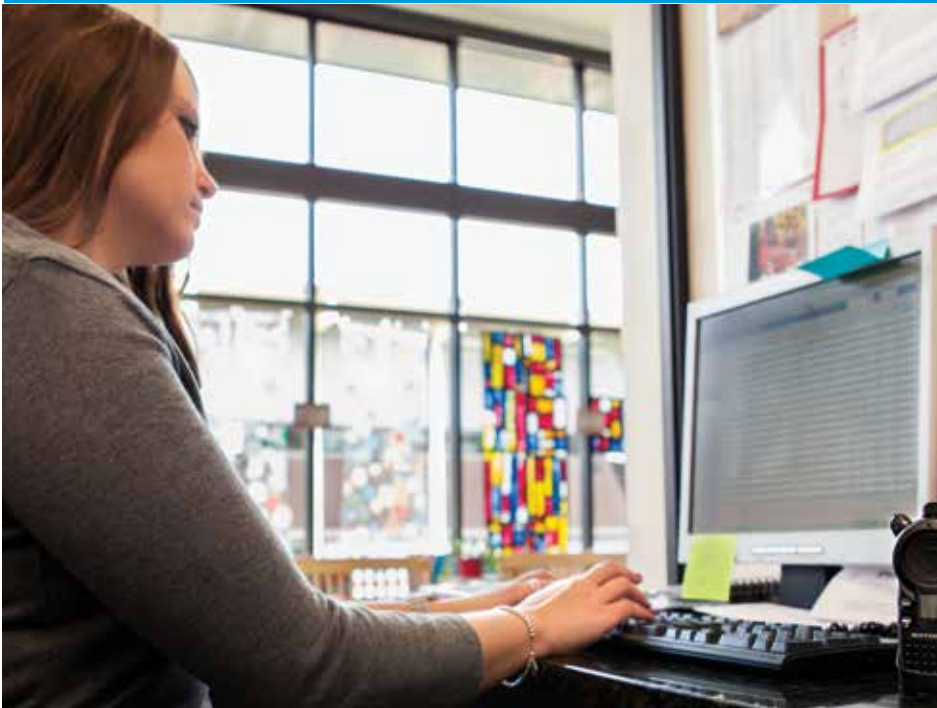
SCHEDULE SHEET

Click on the above download link to access the schedule and pricing file or visit: **https://www.motorolasolutions.com/content/dam/msi/docs/services/learning/2018-emea-training-schedule.pdf**

To view the most current details for any of our courses, please register for an account (see Page 4) and log into the Motorola Solutions Learning Management System (LMS) at: **learning.motorolasolutions.com** or call us at +44 (0) 203 0277 499.

GENERAL INFORMATION

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

TETRASIM™ TRAINING

WHAT IS TETRASIM™ TRAINING?

Motorola Solutions Education Services EMEA can now provide a full portfolio of customised subscriber training through TETRAsim, the global leader in Tetra Training simulators, to simulate a Tetra operational environment in the safety of the classroom.

Motorola solutions Education Services EMEA is pleased to offer customised training for your workforce to simulate a real TETRA operatonal environment using the TETRAsim simulator.

Traditional training with real devices requires extra hardware, maintenance and load on the operational TETRA network. Field training is complicated, immeasurable and uncontrollable. Cooperation between the authorities is difficult to track and there are no metrics for valid feedback.

Rather than providing subscriber operational training to your workforce using a real device, we offer the safety and support of training within a simulator classroom that includes network simulations and authentic realistic scenarios for hands-on practice, facilitating both individual practicals or group and tactical exercises.

Secure, fluent and competent usage of your network through simulator based training.

TETRAsim displays 3D subscriber models with real voice and data, with supporting graphics, instructions, feedback and a high level of user interaction.

Your training can be customised to your exact requirements and to mimic your system equipment and radio type, including radio parameters.

TETRAsim offers a variety of options for the instructor to plan, control and evaluate the training. It also enables controllable dispatcher training on all TETRA features and organisationally specific operational procedures.

During the simulations, every action is automatically measured to ensure that the trainees' skills meet the standard level. Afterwards the instructor can provide feedback to the group referencing specific behaviours at specific time marks.

We can provide training on TETRAsim subscriber simulators or TETRAsim command and control simulators.

Our classrooms are configured to support:

- The Trainer System
- A Network Simulator
- Up to 100 Radio Simulators
- Up to 50 Dispatcher/API Simulators
- Integrated Applications

OPERATOR TRAINING

OPERATOR TRAINING

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

THE SUCCESSFUL IMPLEMENTATION OF YOUR COMMUNICATIONS SYSTEM DEPENDS ON CONFIDENT USERS OF THE SYSTEM.

- **Users of your mobile and portable radios require training on their units to understand its basic operation, features and functions.**
- **Dispatchers of your consoles require training to understand basic operation, features and functions.**
- **Management personnel require training on the Motorola Solutions applications.**

COURSES FOR END USERS:

CONSOLES:
- MCC 7000 Series Dispatch Console Administrator
- MCC 7000 Series Dispatch Console Operator

MOBILES AND PORTABLES:
- APX™ Series
- MOTOTRBO™ Series
- MTP/MTM Series

ADDITIONAL DIMETRA TRAINING:
- Si500 Body-Worn Camera
- Sr600 In-Vehicle Camera
- CommandCentral Vault
- WAVE

TRAIN THE TRAINER

With this option, Motorola Solutions trains people you have identified as qualified instructors so that they in turn can train each individual user in your organisation. These classes are typically done on site using your equipment.

AUDIENCE
This course is geared for customers who have an experienced, dedicated training staff in their organisation. This course concentrates on specific product features and how it relates to the training process.

COURSE OVERVIEW
This course provides the customer's identified training personnel knowledge and practice applying training techniques that will enable them to successfully train their students. Trainers will use simulation, facilitation and hands-on activities to facilitate learning events supported by tailored training materials and job aides. Students will become proficient in discussing common tasks associated with the operation of the customer's radios and consoles as identified by the customer's needs analysis. Note: This course is presented as customer specific and will cover pertinent information on customer equipment.

REQUISITE KNOWLEDGE
Previous training experience and radio system knowledge is a must.

OPERATOR TRAINING

With this option, the users within your organisation are trained by a Motorola Solutions instructor. These classes are typically done on site using your equipment.

CONSOLES TRAINING
These courses provide operators and supervisors with an introduction to the basic operation, administration and feature functionality of the Console Systems. Through facilitation and hands-on practice, users learn to perform tasks that are associated with their organisation's particular system.

- Overview of console configuration
- Console dispatcher and supervisor operation
- Alias Management
- Messaging

SUBSCRIBER TRAINING
These courses provide radio users with an introduction to their radios, a review of their radio's basic functionality by means of job aides tailored to exactly how they use their radios. Through facilitation and hands-on practice, users learn to perform common tasks associated with their radio configuration.

- Overview of radio configuration
- General radio operations

TO REQUEST FIELD TRAINING, PLEASE CONTACT YOUR ACCOUNT MANAGER.

COURSES

USING THE TRAINING PATHS

The test icon **[TEST]** found in the Paths indicates that a post test will be administered after the online overview course is completed. The test is intended to determine that participants have the requisite knowledge necessary to continue on with the remainder of the curriculum.

FOUNDATIONAL COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS **FOUNDATIONAL**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

RF FUNDAMENTALS

RF BASICS / RADIO SYSTEM BASICS

BASIC RF

RDS0002 ONLINE SELF-PACED

BASIC RADIO

RDS0004 ONLINE SELF-PACED

COMMUNICATION SYSTEMS CONCEPTS

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
NST021

CURRICULUM COMPLETE
PARTICIPANT HAS RF KNOWLEDGE REQUIRED FOR ADVANCING TO MORE COMPLEX TECHNICAL TRAINING COURSES.

RADIO SOLUTIONS **FOUNDATIONAL**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

IP/NETWORKING FUNDAMENTALS

BASIC NETWORKING

RDS0003 ONLINE SELF-PACED

**NETWORKING ESSENTIALS IN
MOTOROLA SOLUTIONS COMMUNICATIONS SYSTEM**

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
NST762
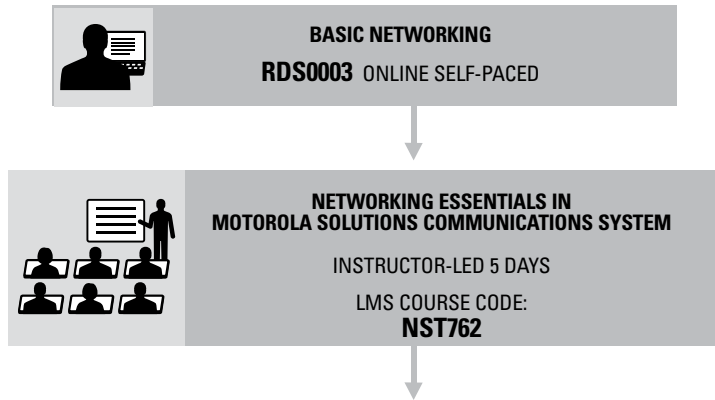
CHOOSE <u>ONE</u> OF THE FOLLOWING COURSES BELOW ACCORDING TO YOUR SOLUTION SYSTEM

DIMETRA SYSTEM
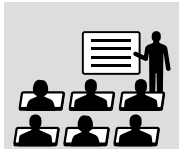
**DIMETRA SYSTEM
APPLIED NETWORKING**

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
DMT1108

OR

MOTOTRBO™ SYSTEM

**MOTOTRBO™ SYSTEMS
APPLIED NETWORKING**

INSTRUCTOR-LED 4 DAYS

LMS COURSE CODE:
PCT2007

OR

LTE SYSTEM

**PUBLIC SAFETY LTE APPLIED
NETWORKING**

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
LTE2007

CURRICULUM COMPLETE
PARTICIPANT HAS IP PROTOCOLS AND NETWORKING SKILLS TO USE MOTOROLA SOLUTIONS SYSTEMS REQUIRING ADVANCED TECHNICAL TRAINING.

BASIC RF

COURSE OVERVIEW
This course emphasizes the concepts behind RF Systems theory and operation. Topics include basic radio transmitters and receivers, RF propagation, modulation, antenna systems, transmission lines and data-communications.

AUDIENCE
Technical staff who need to understand Communication Systems Concepts including basic radio, RF propagation, modulation, antenna systems, transmission lines and data-communications.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe electrical principles, including direct and alternating current.
- Describe the basic structure of radio transmitters and receivers.
- Describe the operation of the antenna system.
- Identify different types of transmission media.
- Describe RF propagation and understand system gains in a link budget.

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
RDS0002

BASIC RADIO

COURSE OVERVIEW
The purpose of this course is to provide the student with the basic, foundational land mobile two-way radio knowledge required when working with Motorola Solutions. This course is ideal for all people who sell or service land mobile two-way radios and it was especially designed to meet the needs of the MR Channel and Motorola Solutions employees.

AUDIENCE
Technical staff who need to understand basic two-way radios

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Define what a two-way radio is.
- Describe two-way radio components.
- Describe communication types.
- List and describe ways of expanding coverage.
- Describe analog and digital solutions.
- Describe how transmit and receive processes work in conventional and trunked two-way radio.
- Define system scalability.
- Identify the considerations to implementing a two-way radio.
- List the characteristics of single-site, single-zone and multi-zone systems.
- Explain the concept of two-way radio security.
- Describe the open standards for the following technologies: APCO P25, TETRA and DMR.

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Basic RF (RDS0002)

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
RDS0004

BASIC NETWORKING

COURSE OVERVIEW
This course provides a detailed description of the fundamentals of system networking. Topics include the OSI seven layer model, bridges and switches, IP and routing, applications and security.

AUDIENCE
Engineers who need to understand the essentials of system networking.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Identify the Elements and Interconnectivity of a basic network
- Define the OSI and TCP/IP Models
- Define the advantages of different Network Layout Options
- List the Physical and Data-Link Layers of the OSI and TCP/IP Models
- Define the Network and Transport Layers of the OSI and TCP/IP Models
- Identify the Service Layers within the OSI and TCP/IP Model
- Define the concept of Network Security.
- Identify standards organisations

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
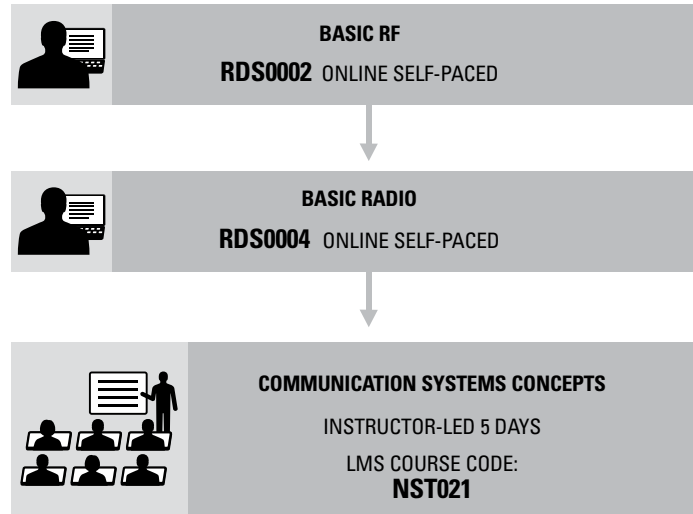**RDS0003**

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **FOUNDATIONAL**

For information on prerequisites and to register for courses visit the LMS at:
**LEARNING.MOTOROLASOLUTIONS.COM**

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

RF FUNDAMENTALS

COURSE OVERVIEW
This course delivers a basic understanding of RF.

AUDIENCE
Technical staff that requires to acquire the fundamentals of RF.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe electrical principles including Direct and Alternating current.
- Describe the basic structure of radio transmitters and receivers.
- Describe transmission lines.
- Describe the construction and operation of antennas.
- Describe RF propagation.
- Describe digital communication techniques

REQUISITE KNOWLEDGE
None

	INSTRUCTOR-LED LENGTH: **5 DAYS** LMS COURSE CODE: **TGTC08**

RF FOR RADIO PROFESSIONALS

COURSE OVERVIEW
This course emphasizes the concepts behind RF Systems theory and operation. Topics include basic radio transmitters and receivers, RF propagation, modulation, antenna systems, transmission lines and data-communications.

AUDIENCE
Technical staff, who need to understand Communication Systems Concepts including basic radio, RF propagation, modulation, antenna systems, transmission lines and data-communications.

COURSE OBJECTIVES
Course consists of six modules: Advanced RF: Introduction, Transmission Lines, RF Hardware Filters, RF Performance, Test Equipment, and Troubleshooting. By the end of the course, you will be able to:
- Describe basic circuit-related phenomena and elements
- Describe the filtering process and types of RF filters List,
- Describe and compare digital modulation schemes
- List common frequency spectrum bands and describe their common uses
- Describe the transmission line theory
- Provide the rules for cable selection, routing and installation
- List advanced RF hardware filters, and provide their descriptions
- Discuss RF performance issues
- List and describe transmitter performance parameters
- List and describe receiver performance parameters
- List and describe common test equipment
- Describe the RF troubleshooting process

REQUISITE KNOWLEDGE
RF and radio basic knowledge or completion of RDS0002 and RDS0004 is highly recommended

	ONLINE, SELF-PACED LENGTH: **3 HOURS** LMS COURSE CODE: **RDS2012**

INTRO TO R56

COURSE OVERVIEW
The purpose of this course is to present a high level overview of the RF site design and construction process, in line with the guidelines listed in Motorola Solutions' Standards and Guidelines for Communication Sites (R56) manual.

AUDIENCE
Technical Associates who need to use the R56 processes.
Anyone who needs a technical introduction to the R56 processes.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the site design and development tasks needed to meet R56 requirements.
- Describe the building and shelter design and installation tasks needed to meet R56 requirements.
- Identify the proper external and internal grounding tasks needed to meet R56 requirements.
- Identify transient voltage surge suppression needs that meet R56 requirements.
- Minimize the impact of RF Site Interference, in line with R56 requirements.
- Identify the equipment installation tasks needed to meet R56 requirements.

REQUISITE KNOWLEDGE
None

	ONLINE, SELF-PACED LENGTH: **1 HOUR** LMS COURSE CODE: **NST9252**

RADIO SOLUTIONS **FOUNDATIONAL**

SITE INSTALLATION PRACTICES WORKSHOP (R56)

COURSE OVERVIEW

The Site Installation Practices Workshop (R56) course is designed to present the standards and guidelines for installing a Motorola Solutions communication system. Participants will understand how a properly installed system can help to ensure a safe and efficient communications system, reducing system down time.

AUDIENCE

Technical System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- List the purposes of grounding and evaluate their importance in terms of personal safety and effective system installation and protection
- Apply principles of basic electronics to the installation standards found in the R56 manual
- Determine how an effectively installed ground system provides protection for a communication system from a lightning strike or electrical anomalies
- List the minimum requirements and specifications for the external and internal ground system
- List the minimum requirements and specifications for installation equipment, cables and documentation for a reliable communication system installation
- Investigate sources for possible solutions to various installation scenarios

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Graduate of a basic electronics course or equivalent experience.

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
NST925

SERVER & VIRTUALIZATION FOUNDATION

COURSE OVERVIEW

This course prepares students to configure a server hardware platform for virtualization. The course covers managing the hardware using BIOS and iLO, installing the ESXi 5.5 hypervisor, creating and provisioning virtual machines, installing client and server operating systems in the virtual machines, installing VMware Tools in the guest operating systems, and maintaining virtual machines using snapshots and OVF packages. Hands-on lab exercises provide experience with the entire installation and provisioning process.

AUDIENCE

Technical Personnel, Employees, Partners, Customers

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the relationship between virtualization and hardware resources
- Manage server hardware using BIOS and iLO
- Install ESXi on the server hardware
- Create and provision Virtual Machines using vSphere
- Install a guest operating systems in a Virtual Machine
- Install VMware Tools on the guest OS
- Configure VM startup and shutdown order
- Create and manage snapshots
- Migrate virtual machines using OVF packages

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Comp-TIA Server+ Certification or equivalent

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
SRV1010

COMMUNICATION SYSTEMS CONCEPTS

COURSE OVERVIEW

The Communication Systems Concepts course emphasizes the concepts behind RF Systems theory and operation. Major topics covered include:
- RF System Operation, including talkaround, repeater operation, and types of signaling used in RF Systems
- A basic walkthrough of building a communication system from 'Simplex', to 'Half Duplex', 'Voting Systems', and 'Simulcast' is done, emphasizing the improvements in communication obtained with each step
- Trunking Operation, including Smartzone operation
- Types of modulation used in RF System operation, including ASTRO. Radio frequency path including the antenna and transmission line
- Decibels and their uses on the job. RF Propagation/RF Interference
- Basic Troubleshooting practices from the system perspective

AUDIENCE
General
COURSE OBJECTIVES

After completing this course, the student will be able to:
- Define terms commonly used in two-way communication systems
- Effectively use two-way radio communication systems knowledge to troubleshoot typical two-way communication radio systems
- Develop requirements for a two-way radio system by establishing programming and protocol requirements as requested
- Improve skills in the interpretation of typical two-way radio checks of the receiver, transmitter and the antenna system to troubleshoot a two-way radio communication system
- Use decibels to interpret the radio frequency path and antenna system to describe expected radio communication system performance and troubleshooting

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Knowledge of basic electronics
- Experience using standard communication test equipment

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
NST021

CLICK HERE TO VIEW THE
SCHEDULE

RADIO SOLUTIONS **FOUNDATIONAL**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

NETWORKING ESSENTIALS IN MOTOROLA SOLUTIONS COMMUNICATIONS EQUIPMENT

COURSE OVERVIEW

The Networking Essentials in Motorola Solutions Communications Equipment course provides the technician with the essential elements of networking required for the installation and maintenance of most Motorola Solutions communications systems. The course includes ample hands-on and basic troubleshooting on network elements.

AUDIENCE

System Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recall basic network terminology
- Compare basic configuration types, both logical and physical
- Describe the basic OSI (Open System Interconnect) model compared with the TCP/IP model
- Construct a basic LAN with a Windows Server Domain Controller and workstations
- Examine the interaction between the routers through their configurations
- Use common network commands to simulate traffic and validate connectivity and routing

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- An understanding of the basic Motorola Solutions Communications Systems is highly recommended
- Basic familiarization with computer operating systems is required
- A basic knowledge of networking is helpful and recommended

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
NST762

ASTRO® 25 SYSTEMS APPLIED NETWORKING

COURSE OVERVIEW

The ASTRO® 25 Systems Applied Networking course provides technicians with the necessary networking information required for understanding the network components installed in modern Motorola Solutions communications systems. The course includes familiarization with basic networking concepts, and the networking components deployed in the ASTRO SmartZone System and ASTRO® 25 System.

AUDIENCE

Technical System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recall basic network concepts
- Identify the various system network components
- Define the LAN topologies for each system
- Define the WAN topologies for each system
- Diagram SNMP deployment throughout the system
- Identify the HP switches and Motorola Solutions series routers
- Perform backup, restore, and recovery procedures of routers and LAN switches
- Identify network security components and concepts in an ASTRO® 25 system

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Networking Essentials in Motorola Solutions
- Communications Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
NWT003

TETRA OVERVIEW

COURSE OVERVIEW

This course will provide an introduction to TETRA as a precursor to proprietary TETRA and Dimetra solutions.

AUDIENCE

Personnel requiring a generic introduction to TETRA.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the history and function of the TETRA Standard and ETSI Role in the European Standard
- Describe the purpose and function of the various TETRA interfaces
- Describe the Benefits of the TETRA services provided
- List the benefits provided by the TETRA system
- Describe the TETRA specifications for, system parameters, protocol specifications and the TETRA spectrum
- Describe the various security safeguards in place within the TETRA standard for Radio communication systems
- Describe the functions and purpose of TETRA

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TGTC06

SYSTEM ENGINEERING OVERVIEW

COURSE OVERVIEW
This course delivers a basic understanding of System Engineering.

AUDIENCE
Technical staff that requires to acquire a System Engineering Overview.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe electrical principles including AC and DC.
- Describe radio principles.
- Describe Impedance in transmission lines.
- Describe the purposes and operation of an antenna system.
- Describe RF propagation.
- Describe Tetra Air Interface principles.
- Describe RF Site Techniques and Planning.
- Describe Dimetra Call Processing and Networking.
- Describe Dimetra Fleetmapping concept.
- Describe system optimization, the role of NM applications and RF tools used in the optimization process.

REQUISITE KNOWLEDGE
Knowledge of basic electronic and electrical, radio frequency and computer networking is an advantage.

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
DMT1086

DIMETRA IP FLEETMAPPING WORKSHOP

COURSE OVERVIEW
This course provides an overview of the processes needed to design and develop a fleetmap for a Dimetra R8.2 system. It is highly practical in nature and will guide delegates through the steps and processes necessary to design a basic Fleetmap. This course will not cover every programmable infrastructure or TETRA radio feature, but will provide the knowledge required for delegates to expand on the subjects covered in this course to develop more complex system Fleetmaps.

AUDIENCE
All staff who are involved in system planning and Fleetmapping of a Dimetra IP R8.2 system.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Perform the basic planning requirements and complete a simple Fleetmap information template
- Write a simple Fleetmap based on sample operational requirement information

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Dimetra IP System Overview
- Dimetra IP System Configuration & Administration Workshop

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TGTC04

DIMETRA APPLIED NETWORKING

COURSE OVERVIEW
This course provides engineers and technicians with the necessary networking information required for the network components applied in the DIMETRA systems. The course includes overview of the basic networking concepts, network configuration overview of the transport network components and information assurance applied in the DIMETRA systems.

AUDIENCE
Technical System Managers and Network Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe basic IP network hardware and protocols.
- Analyze basic IP network connectivity and addressing.
- Describe DIMETRA Network Transport Subsystem.
- Operate DIMETRA Transport Network Device Management application.
- Describe DIMETRA Master Site VLAN/VRRP Operation.
- Describe Site link, console site link and Inter-zone link connectivity.
- Describe Site link, console site link and Inter-zone link connectivity.
- Describe DIMETRA applied networking in a call processing .
- Describe DIMETRA Information Assurance.
- Describe the Customer Network Integration interfaces
- Describe DIMETRA Data Subsystem

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
DMT1108

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **FOUNDATIONAL**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ SYSTEMS APPLIED NETWORKING

COURSE OVERVIEW

The MOTOTRBO™ Systems Applied Networking provides technicians with the necessary information required for understanding the typical networking requirements for implementing a variety or MOTOTRBO™ solutions. The course includes familiarization/review of basic networking concepts and MOTOTRBO™-specific networking requirements. This course will focus on specific configurations for IP Site Connect, Linked Capacity Plus, and Connect Plus trunking systems.

AUDIENCE

Technical System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recall Basic Networking Concepts
- Indentify recommended network components for MOTOTRBO™ systems
- Define LAN/WAN topologies for MOTOTRBO™ systems
- Perform backup, restore and recovery of recommended network components
- Identify network security concepts for MOTOTRBO™ systems

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Networking Essentials in Motorola Solutions
- Communications Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE: **PCT2007**

PUBLIC SAFETY LTE APPLIED NETWORKING

COURSE OVERVIEW

The Public Safety LTE Applied Networking course covers the operation and maintenance of Motorola Solutions-supplied network transport equipment used in a PS LTE network. Participants will learn the operation and replacement tasks required to maintain Layer 2 switches, Layer 3 switches, the NTP server, firewalls, and other devices which provide backhaul transport and connectivity services in the network. This lab-based course offers students practice with critical maintenance procedures on standalone equipment without impacting network operation.

AUDIENCE

Customer System Managers, Customer Network Transport Technical Staff, MSI employees

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Check and manage status of LTE network transport devices
- Upgrade and downgrade device firmware or operating system
- Backup and restore device configuration
- Replace device hardware
- Validate and troubleshoot device operation

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE: **LTE2007**

CLICK HERE TO VIEW THE **SCHEDULE**

DIMETRA SYSTEMS COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

DIMETRA SYSTEMS COURSES (CTD)

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP MSO SYSTEM ENGINEER

DIMETRA IP SYSTEM OVERVIEW

INSTRUCTOR-LED 3 DAYS

TSYS01R90

DIMETRA IP CONFIGURATION AND ADMINISTRATION WORKSHOP
INSTRUCTOR-LED
4 DAYS
TSYS04R90

OPTIONAL TRAINING

PARTICIPANT HAS DIMETRA IP SYSTEM OVERVIEW KNOWLEDGE REQUIRED FOR ADVANCING TO THE FOLLOWING COURSES.

DIMETRA IP FAULT MANAGEMENT WORKSHOP
INSTRUCTOR-LED
3 DAYS

TSYS06R90

SECURE COMMUNICATIONS

DIMETRA IP SECURE COMMUNICATIONS COURSE
INSTRUCTOR-LED
3 DAYS

TSYS16R90

DIMETRA IP FAULT MANAGEMENT WORKSHOP
INSTRUCTOR-LED
5 DAYS

TSYS10R90

NETWORK SECURITY

DIMETRA IP NETWORK SECURITY
INSTRUCTOR-LED
1 DAY

TSYS17R90

DIMETRA IP FAULT MANAGEMENT WORKSHOP
INSTRUCTOR-LED
3 DAYS

TSYS08R90

ENCRYPTION, AUTHENTICATION & PROVISIONING

DIMETRA IP AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING
INSTRUCTOR-LED
3 DAYS

TSYS12R90

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP FIELD ENGINEER
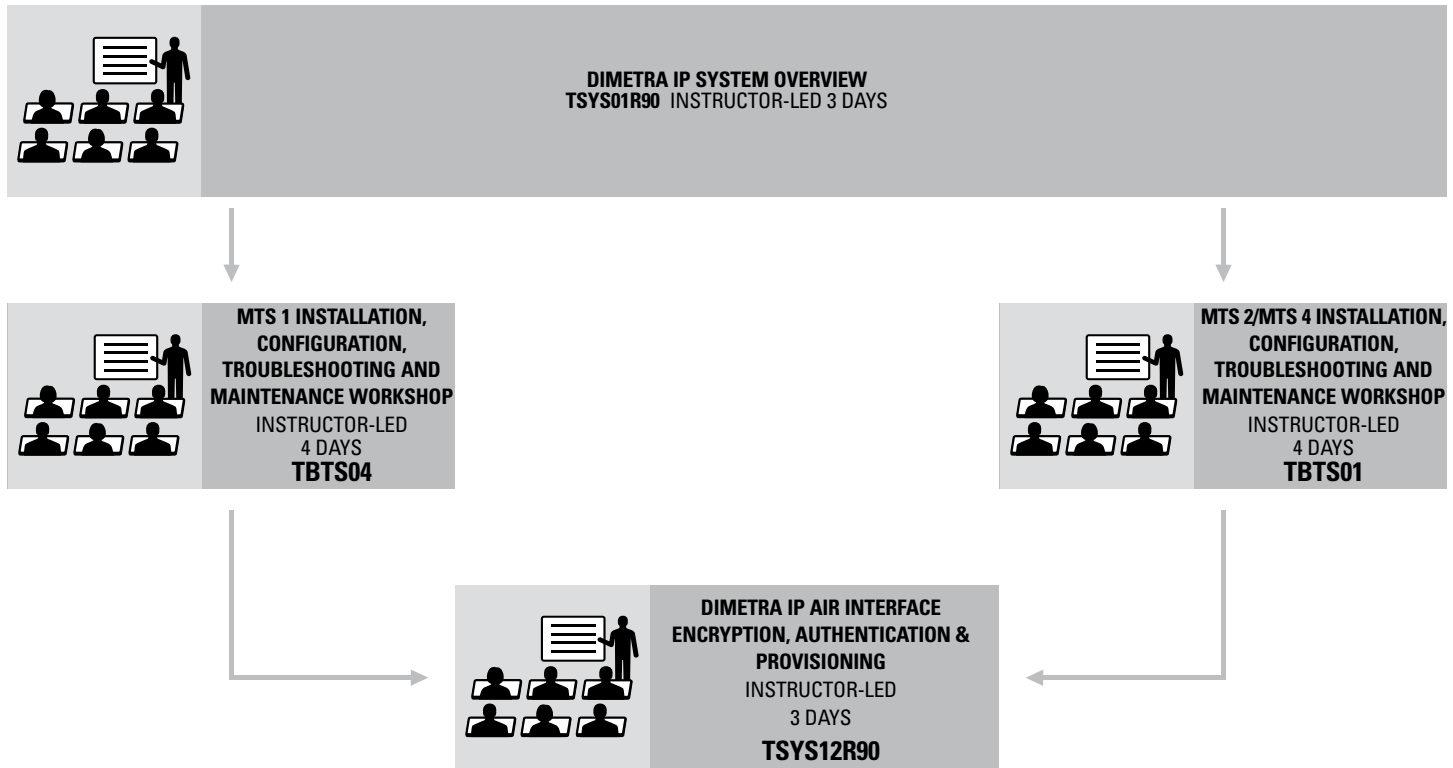
DIMETRA IP SYSTEM OVERVIEW
TSYS01R90 INSTRUCTOR-LED 3 DAYS

MTS 1 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE WORKSHOP
INSTRUCTOR-LED
4 DAYS
TBTS04

MTS 2/MTS 4 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE WORKSHOP
INSTRUCTOR-LED
4 DAYS
TBTS01

DIMETRA IP AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING
INSTRUCTOR-LED
3 DAYS
TSYS12R90

OPTIONAL TRAINING

PARTICIPANT HAS DIMETRA IP SYSTEM OVERVIEW KNOWLEDGE REQUIRED FOR ADVANCING TO THE FOLLOWING COURSES.

INTRODUCTION TO R56
NST9252

ONLINE, SELF-PACED
1 HOUR

SITE INSTALLATION PRACTICES WORKSHOP (R56)
NST925

INSTRUCTOR-LED
4 DAYS

TRACES WORKSHOP
TMSC04

INSTRUCTOR-LED
1 DAY

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP SYSTEM ADMINISTRATOR

**DIMETRA IP SYSTEM OVERVIEW
TSYS01R90**

INSTRUCTOR-LED
3 DAYS

**DIMETRA IP CONFIGURATION & ADMINISTRATION WORKSHOP
TSYS04R90**

INSTRUCTOR-LED
4 DAYS

**DIMETRA IP FAULT MANAGEMENT WORKSHOP
TSYS06R90**

INSTRUCTOR-LED
3 DAYS

**DIMETRA IP PERFORMANCE MANAGEMENT WORKSHOP
TSYS08R90**

INSTRUCTOR-LED
3 DAYS

OPTIONAL TRAINING

PARTICIPANT HAS DIMETRA IP SYSTEM OVERVIEW KNOWLEDGE REQUIRED FOR ADVANCING TO THE FOLLOWING COURSES.

**DIMETRA IP SECURE COMMUNICATIONS
TSYS16R90**

INSTRUCTOR-LED
3 DAYS

**TRACES WORKSHOP
TMSC04**

INSTRUCTOR-LED
1 DAY

**DIMETRA IP AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING
TSYS12R90**

INSTRUCTOR-LED
3 DAYS

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP DISPATCH ADMINISTRATOR
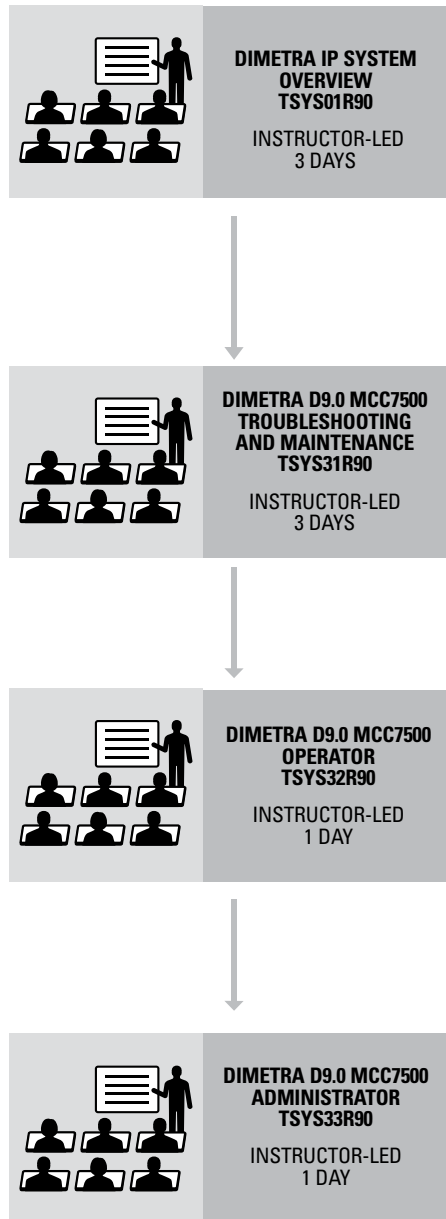
DIMETRA IP SYSTEM OVERVIEW
TSYS01R90

INSTRUCTOR-LED
3 DAYS

DIMETRA D9.0 MCC7500 TROUBLESHOOTING AND MAINTENANCE
TSYS31R90

INSTRUCTOR-LED
3 DAYS

DIMETRA D9.0 MCC7500 OPERATOR
TSYS32R90

INSTRUCTOR-LED
1 DAY

DIMETRA D9.0 MCC7500 ADMINISTRATOR
TSYS33R90

INSTRUCTOR-LED
1 DAY

OPTIONAL TRAINING

PARTICIPANT HAS DIMETRA IP SYSTEM OVERVIEW KNOWLEDGE REQUIRED FOR ADVANCING TO THE FOLLOWING COURSES.

DIMETRA IP SECURE COMMUNICATIONS
TSYS16R90

INSTRUCTOR-LED
3 DAYS

DISPATCH COMMUNICATIONS SERVER WORKSHOP
DMT1112

INSTRUCTOR-LED
3 DAYS

DIMETRA IP AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING
TSYS12R90

INSTRUCTOR-LED
3 DAYS

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP DISPATCH OPERATOR
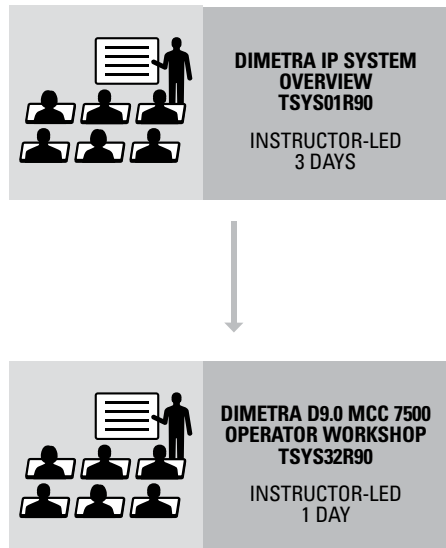
| DIMETRA IP SYSTEM OVERVIEW TSYS01R90 | INSTRUCTOR-LED 3 DAYS |

| DIMETRA D9.0 MCC 7500 OPERATOR WORKSHOP TSYS32R90 | INSTRUCTOR-LED 1 DAY |

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

RADIO PROGRAM AND FLEETMAPPING

DIMETRA IP SYSTEM OVERVIEW
TSYS01R90

INSTRUCTOR-LED
3 DAYS

DIMETRA IP FLEETMAPPING WORKSHOP
TGTC04

INSTRUCTOR-LED
3 DAYS

TETRA TERMINAL PROGRAMMING
TTER01PLUS

INSTRUCTOR-LED
2 DAYS

INTEGRATED TERMINAL MANAGEMENT (REMOTE PROGRAMMING)
DMT1050

INSTRUCTOR-LED
1 DAY

OPTIONAL TRAINING

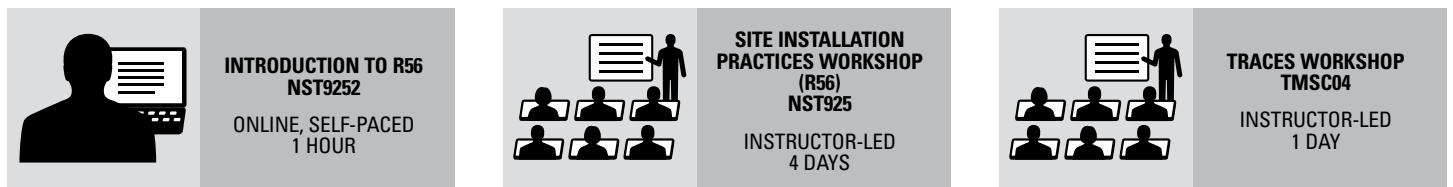PARTICIPANT HAS DIMETRA IP SYSTEM OVERVIEW KNOWLEDGE REQUIRED FOR ADVANCING TO THE FOLLOWING COURSES.

DIMETRA IP AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING
TSYS12R90

INSTRUCTOR-LED
3 DAYS

DIMETRA IP SECURE COMMUNICATIONS
TSYS16R90

INSTRUCTOR-LED
3 DAYS

DIMETRA IP CONFIGURATION & ADMINISTRATION WORKSHOP
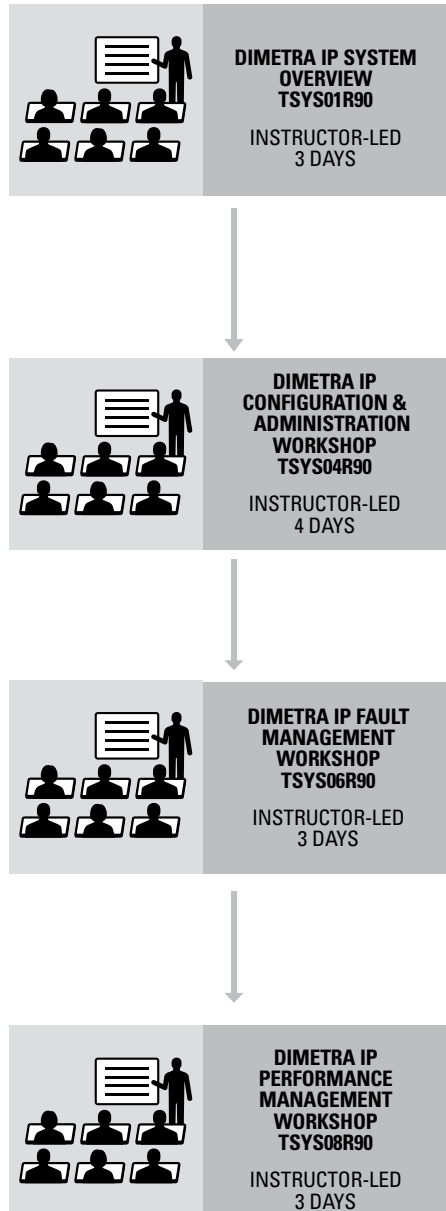TSYS04R90

INSTRUCTOR-LED
4 DAYS

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP SCALABLE (DIPS) D9.0

DIMETRA IP D9.0 SYSTEM OVERVIEW

COURSE OVERVIEW
This course provides an overview of the features and functions of a DIMETRA IP D9.0 system. The course is divided into eight modules and includes descriptions of the various call types and system hardware functionality. An application overview describes the purpose of the software used to manage and administer the system. Each module includes an assessment designed to test learning.

AUDIENCE
All staff who require an overview of the DIMETRA IP system functionality and features.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe Basic Radio concepts.
- Describe DIMETRA IP benefits.
- Describe DIMETRA IP D9.0 features and their benefits.
- Describe DIMETRA IP D9.0 Single Zone system components and their functionality.
- Describe the purpose and function of DIMETRA IP D9.0 Network Management applications.
- Describe DIMETRA IP D9.0 Multi-Zone system components and their functionality.
- Describe how different types of calls are processed through a DIMETRA IP D9.0 system.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS01R90

DIMETRA IP D9.0 CONFIGURATION & ADMINISTRATION WORKSHOP

COURSE OVERVIEW
During this workshop delegates will use configuration and administration applications to manage a DIMETRA IP D9.0 system as they would on a daily basis. The delegates will perform configuration set up procedures for the more popular features and functions as well as common administration tasks, based on real business scenarios.

AUDIENCE
System managers responsible for configuration and administration of a DIMETRA IP D9.0 system

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the purpose of Configuration Management and Server Administration within your DIMETRA IP D9.0 System
- Define tools used to perform Configuration Management
- Perform system user and infrastructure configuration procedures
- Perform basic System Security Management procedures
- Define Applications used to perform Network Management Server and Database Administration tasks
- Explain the importance of daily operational tasks
- Perform daily operational tasks

REQUISITE KNOWLEDGE
- DIMETRA IP D9.0 System Overview course (TSYS01R90).

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
TSYS04R90

DIMETRA IP D9.0 FAULT MANAGEMENT WORKSHOP

COURSE OVERVIEW
The workshop will allow delegates to use applications to identify faults on systems components using a live DIMETRA IP D9.0 system and within the context of business scenarios.

AUDIENCE
System operations staff and field engineers who perform fault management tasks on a DIMETRA IP D9.0 system.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Define the role of Fault Management within Network Management
- Define the role of each of the applications used within Fault Management
- Utilize the Unified Event Manger-UEM application to assist Fault Management within the DIMETRA IP system
- Use the TNCT to assist Fault Management
- Use the Zone Configuration Manager application to perform diagnostic functions within the DIMETRA IP system
- Use the Zone Watch application to assist Fault Management within the DIMETRA IP system
- Identify file backup procedures.

REQUISITE KNOWLEDGE
- DIMETRA IP D9.0 System Overview course (TSYS01R90).

INSTRUCTOR-LED
LENGTH: **3 DAYS**
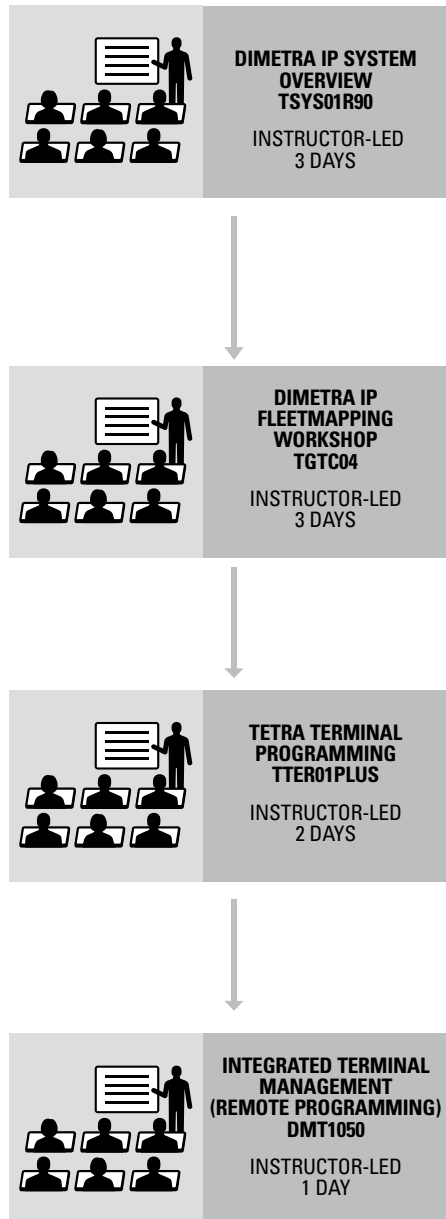LMS COURSE CODE:
TSYS06R90

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP D9.0 PERFORMANCE MANAGEMENT WORKSHOP

COURSE OVERVIEW

During this workshop delegates will use applications on a live DIMETRA IP D9.0 system using business scenarios. Using these applications delegates will learn how to interpret system and user performance based on call traffic and device statistics.

AUDIENCE

System operators and managers who monitor and collect system statistics on a DIMETRA IP D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the factors that affect system performance.
- Describe the Performance Management Analysis process.
- List the Performance Management applications used in a DIMETRA system.
- Describe the purpose of system reports, system usage applications and device statistics in Performance Management activities.
- Access and navigate DIMETRA Performance Management applications to monitor system activity and generate system reports..

REQUISITE KNOWLEDGE

- DIMETRA IP D9.0 System Overview course (TSYS01R90).

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS08R90

DIMETRA IP D9.0 TROUBLESHOOTING AND MAINTENANCE WORKSHOP

COURSE OVERVIEW

During this workshop delegates will troubleshoot and maintain a live DIMETRA IP system using business scenarios, troubleshooting procedures and diagnostic applications. Delegates will also perform complex FRU/FRE procedures to resolve hardware faults.

AUDIENCE

System and Field Engineers who troubleshoot and maintain a DIMETRA IP D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe troubleshooting model process, system support tools and technical support services provided by Motorola Solutions.
- Describe the DIMETRA IP system architecture.
- Perform troubleshooting procedures using system troubleshooting tools
- Perform recommended routine maintenance procedures for a DIMETRA IP system.
- Perform replacement procedures and reconfigure faulty Field Replaceable Units (FRUs) and Field Replaceable Equipment/ Entities (FREs) within a DIMETRA IP system.
- Perform verification procedures on FRU/FRE replacement.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- DIMETRA IP D9.0 System Overview course (TSYS01R90).
- DIMETRA IP D9.0 Fault Management Workshop (TSYS06R90).

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
TSYS10R90

DIMETRA IP D9.0 AIR INTERFACE ENCRYPTION, AUTHENTICATION AND PROVISIONING

COURSE OVERVIEW

During this workshop, students will perform key management tasks on a live DIMETRA IP D9.0 system. Students will perform authentication and provisioning procedures for the daily administration of user authentication and provisioning based on real business scenarios.

AUDIENCE

System Operators and Managers responsible for the provisioning and management of key authentication in a DIMETRA IP D9.0 System.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe how Air Interface Encryption and Authentication work within the DIMETRA IP System.
- Describe the hardware components used in the Encryption and Authentication Process.
- Describe distribution, storage, key updates and key management of Air Interface Encryption and Authentication keys.
- Perform Encryption Key management procedures using the Enhanced AuC, PrC, and KVL system components.

REQUISITE KNOWLEDGE

- DIMETRA IP D9.0 System Overview course (TSYS01R90).

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS12R90

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP D9.0 SECURE COMMUNICATION WORKSHOP

COURSE OVERVIEW

During the workshop delegates will perform key management, administrative, and maintenance tasks on a live DIMETRA IP D9.0 system. The workshop is divided into six modules and real business scenarios will allow delegates to perform key management, key transference, maintenance and troubleshooting procedures on the Key Management Facility (KMF) server and client.

AUDIENCE

System Operators, Managers and Field Technicians responsible for the management and maintenance of secure end-to-end communications in a DIMETRA IP D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the theory of DIMETRA Secure Communications Operation.
- Carry out KMF Administration.
- Utilize the E2E KVL.
- Perform KMF OTAK/OTEK Management Activities and Procedures.
- Setup an MCC7500S Secure Console.
- Administer the KMF Server.

REQUISITE KNOWLEDGE
- DIMETRA IP D9.0 System Overview course (TSYS01R90).

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS16R90

DIMETRA IP D9.0 NETWORK SECURITY

COURSE OVERVIEW

The workshop is designed to give an overview of the elements of the DIMETRA IP network security solution. The generic threat to network security will be discussed. The course is divided into six modules during which delegates will perform basic procedures using network security software elements.

AUDIENCE

System Operators, Managers, and Field Technicians responsible for the management and maintenance of Network Security in a DIMETRA IP D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the Generic Threats to Network Security
- Describe the DIMETRA AntiVirus protection
- Describe the DIMETRA Authentication Management
- Describe and manage DIMETRA IP firewall protection

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DIMETRA IP D9.0 System Overview (TSYS01R90)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS17R90

CLICK HERE TO VIEW THE
SCHEDULE

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA X CORE D9.0

DIMETRA X CORE D9.0 SYSTEM OVERVIEW

COURSE OVERVIEW

This course provides an overview of the features and functions of a DIMETRA X Core D9.0 system. The course is divided into eight modules and includes descriptions of the various call types and system hardware functionality. An application overview describes the purpose of the software used to manage and administer the system. Each module includes an assessment designed to test learning.

AUDIENCE

All staff who require an overview of the DIMETRA X Core system functionality and features.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe Basic Radio concepts.
- Describe DIMETRA X Core benefits.
- Describe DIMETRA X Core D9.0 features and their benefits.
- Describe DIMETRA X Core D9.0 Single Zone system components and their functionality.
- Describe the purpose and function of DIMETRA X Core D9.0 Network Management applications.
- Describe DIMETRA X Core D9.0 Multi-Zone system components and their functionality.
- Describe DIMETRA X Core D9.0 Inter-System Interface functionality.
- Describe how different types of calls are processed through a DIMETRA X Core D9.0 system.

REQUISITE KNOWLEDGE
None

	INSTRUCTOR-LED
	LENGTH: **3 DAYS**
	LMS COURSE CODE: **DMT1088**

DIMETRA X CORE D9.0 CONFIGURATION AND ADMINISTRATION

COURSE OVERVIEW

During this workshop delegates will use configuration and administration applications to manage a DIMETRA X Core D9.0 system as they would on a daily basis. The delegates will perform configuration set up procedures for the more popular features and functions as well as common administration tasks, based on real business scenarios.

AUDIENCE

System managers responsible for configuration and administration of a DIMETRA X Core D9.0 system

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the purpose of Configuration Management and Server Administration within your DIMETRA X Core D9.0 System.
- Describe fleetmapping and home zone map function.
- Perform configuration procedures using UCM.
- Perform configuration procedures using ZCM.
- Perform configuration procedures using RCM.
- Perform Network Management Server Administration tasks.
- Explain the importance of daily operational tasks.
- Perform server database administration tasks.

REQUISITE KNOWLEDGE
- DIMETRA X Core D9.0 System Overview course (DMT1088)

	INSTRUCTOR-LED
	LENGTH: **4 DAYS**
	LMS COURSE CODE: **DMT1089**

DIMETRA X CORE D9.0 FAULT MANAGEMENT

COURSE OVERVIEW

The workshop will allow delegates to use applications to identify faults on systems components using a live DIMETRA X Core D9.0 system and within the context of business scenarios.

AUDIENCE

System operations staff and field engineers who perform fault management tasks on a DIMETRA IP D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Define the role of Fault Management within Network Management
- Define the role of each of the applications used within Fault Management
- Utilize the Unified Event Manger (UEM) application to assist Fault Management within the DIMETRA X Core system
- Use the Transport Network Device Manager (TNDM) to assist Fault Management
- Use the Zone Configuration Manager application to perform diagnostic functions within the DIMETRA X Core system
- Use the Zone Watch application to assist Fault Management within the DIMETRA X Core system
- Identify file backup procedures.

REQUISITE KNOWLEDGE
- DIMETRA X Core D9.0 System Overview course (DMT1088)

	INSTRUCTOR-LED
	LENGTH: **3 DAYS**
	LMS COURSE CODE: **DMT1090**

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA X CORE D9.0 PERFORMANCE MANAGEMENT

COURSE OVERVIEW

During this workshop delegates will use applications on a live DIMETRA X Core D9.0 system using business scenarios. Using these applications delegates will learn how to interpret system and user performance based on call traffic and device statistics.

AUDIENCE

System operators and managers who monitor and collect system statistics on a DIMETRA X Core D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the factors that affect system performance.
- Describe the Performance Management Analysis process.
- List the Performance Management applications used in a DIMETRA system.
- Describe the purpose of system reports, system usage applications and device statistics in Performance Management activities.
- Access and navigate DIMETRA Performance Management applications to monitor system activity and generate system reports.

REQUISITE KNOWLEDGE

- DIMETRA X Core D9.0 System Overview course (DMT1088)

DIMETRA X CORE D9.0 TROUBLESHOOTING AND MAINTENANCE

COURSE OVERVIEW

During this workshop delegates will troubleshoot and maintain a live DIMETRA X Core system using business scenarios, troubleshooting procedures and diagnostic applications. Delegates will also perform complex FRU/FRE procedures to resolve hardware faults.

AUDIENCE

System and Field Engineers who troubleshoot and maintain a DIMETRA X Core D9.0 system.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe troubleshooting model process, system support tools and technical support services provided by Motorola Solutions.
- Describe the DIMETRA X Core system architecture.
- Perform troubleshooting procedures using system troubleshooting tools.
- Perform recommended routine maintenance procedures for a DIMETRA X Core system.
- Perform replacement procedures and reconfigure faulty Field Replaceable Units (FRUs) and Field Replaceable Equipment/Entities (FREs) within a DIMETRA X Core system.
- Perform verification procedures on FRU/FRE replacement.

REQUISITE KNOWLEDGE

- DIMETRA X Core System Overview course (DMT1088)
- DIMETRA X Core Fault Management Workshop (DMT1090)

INSTRUCTOR-LED	LENGTH: **3 DAYS**
	LMS COURSE CODE: **DMT1091**

INSTRUCTOR-LED	LENGTH: **5 DAYS**
	LMS COURSE CODE: **DMT1092**

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP COMPACT D8.2

DESIGN A DIMETRA IP COMPACT SYSTEM

COURSE OVERVIEW

This course provides best practices in the design of DIMETRA IP Compact System. It covers all areas from the initial gathering of customer requirements, selecting the most appropriate hardware and features, through to final technical review and customer acceptance testing. The course is highly practical and covers the use of system design tools, such as the Pricebook Configuration tool, Network Configuration Tool Express and Terminal Pricebook Configuration Tool to produce a final design and cost breakdown of a customer system

AUDIENCE

Technical System Managers responsible for setting-up, configuring and administering a DIMETRA IP Compact System.

COURSE OBJECTIVES

After completing this course, the student will be able to:
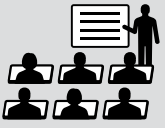- Gather customer system requirements using the 5C question model
- Generate preliminary design using Motorola system design tools
- Select DIPC hardware and features to meet customer needs
- Create a detailed design document for customer approval using Motorola system design tools
- Describe requirements for RF and control site selection
- Develop final system documentation based on customer updates
- Describe installation planning requirements

REQUISITE KNOWLEDGE

- AEE1300 Basic RF Fundamentals
- AEE1301 Basic Networking Fundamentals
- AAE1403 DIMETRA IP Subscriber Portfolio Overview
- AAE1404 DIMETRA IP System Portfolio Overview
- DMT1018.00E Tetra Accessories Overview

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
AEL2302

SETTING UP AND MANAGING YOUR DIMETRA IP COMPACT SYSTEM

COURSE OVERVIEW

The workshop will provide an overview on how to set-up and run a DIMETRA IP Compact/ Scalable IP system. The course will provide a system overview of the components and applications that make up the system as well as hands-on practicals that will allow delegates to perform configuration set-up procedures for common features and functions as well as common administration tasks.

AUDIENCE

System Managers/Staff responsible for setting-up, configuring and administering a DIMETRA IP Compact /Scalable IP System, MTS and MCC7500 equipment.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Setup a DIMETRA IP Compact/Scalable IP System.
- Configure a DIMETRA IP Compact/Scalable IP System for use using NM applications and procedures.
- Carry out MTS configuration and verification procedures using Motorola BTS Service Software application.
- Setup and configure a MCC 7500 dispatch subsystem for use within the DIMETRA IP Compact/Scalable IP system.
- Carry out system backup and restoration procedures using the DIMETRA Enhanced Software Update application and manual techniques.

REQUISITE KNOWLEDGE

- Network Management Overview (DCOMP01R82)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
DCOMP04R82

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at: **LEARNING.MOTOROLASOLUTIONS.COM**

For general information contact the Europe, Middle East and Africa Education Services Help Desk at: **+44 (0) 203 0277 499 or training.emea@motorolasolutions.com**

TROUBLESHOOTING AND MAINTENANCE OF YOUR DIMETRA IP COMPACT SYSTEM

COURSE OVERVIEW

The workshop will allow delegates an introduction into troubleshooting and maintaining a live DIMETRA IP Compact system. Delegates will complete a series of business scenario task sheets, utilising a troubleshooting methodology, diagnostics applications and completing FRU\FRE procedures to resolve issue.

AUDIENCE

Technical System Managers and Network Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe troubleshooting model process, system support tools and technical support services provided by Motorola Solutions

- Describe the DIMETRA system architecture

- Perform troubleshooting procedures using system troubleshooting tools

- Perform recommended routine maintenance procedures for a DIMETRA IP System

- Perform replacement procedures and reconfigure faulty Field Replaceable Units (FRUs) and Field Replaceable Equipment/ Entities (FREs) within a DIMETRA IP System.

- Perform verification procedures on FRU/FRE replacement.

REQUISITE KNOWLEDGE

- RF background knowledge

- Network Management Overview (DCOMP01R82)

- Setting up and Managing your DIMETRA IP Compact (DCOMP04R82)

TETRA TERMINAL OPERATOR, PROGRAMMING AND MAINTENANCE

COURSE OVERVIEW

This practical course will provide assistance to TETRA radio users, diagnose radio problems both locally and remotely. Program the radio for end users operations and provide first line maintenance for suspected faulty radios.

AUDIENCE

Technicians and personnel, who will be involved in programming and maintaining to level 1.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Locate and use all MTP6650 and MTM5400 controls.

- Execute trunked and direct mode calls using the MTP6650 and MTM5400 radios.

- Carry out radio troubleshooting using built-in diagnostics.

- Describe the function of Motorola CPS Plus software.

- Create a user codeplug and program the codeplug into an MTP6650 and MTM5400 radio.

- Carry out software troubleshooting using CPS Plus.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE: **DMT1107**

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE: **DCOMP05R82**

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA IP MICRO

DESIGNING A DIMETRA IP MICRO SYSTEM

COURSE OVERVIEW

This course provides best practices in the design of DIMETRA IP Micro systems. It covers all areas from the initial gathering of customer requirements, selecting the most appropriate hardware and features, through to final technical review and customer acceptance testing. The course is highly practical and covers the use of system design tools, such as the Micro Pricebook Configuration tool and Terminal Pricebook Configuration Tool to produce a final design and cost breakdown of a customer system

AUDIENCE

Technical System Managers

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Gather customer system requirements using the 5C question model
- Generate preliminary design using Motorola system design tools
- Select DIPM hardware and features to meet customer needs
- Create a detailed design document for customer approval using Motorola system design tools
- Describe requirements for RF and control site selection
- Develop final system documentation based on customer updates
- Describe installation planning requirements

REQUISITE KNOWLEDGE

- AAE1303 Radio 101 Fundamentals
- AEE1300 Basic RF Fundamentals
- AEE1301 Basic Networking Fundamentals
- AAE1403 DIMETRA IP Subscriber Portfolio Overview
- AAE1404 DIMETRA IP System Portfolio Overview

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
AEL2303

DEPLOYING AND MANAGING A DIMETRA IP MICRO SYSTEM

COURSE OVERVIEW

The workshop will provide an overview on how to set-up and run a DIMETRA IP Micro system. The course will provide a system overview of the components and applications that make up the system as well as hands-on practicals that will allow delegates to perform typical configuration set-up procedures as well as common administration tasks.

AUDIENCE

Personnel responsible for setting-up, configuring and administrating a DIMETRA IP Micro system.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the procedure for a DIMETRA IP Micro System installation.
- Demonstrate the DIMETRA IP Micro System operation procedures.
- Demonstrate the DIMETRA IP Micro System administration procedures.
- Demonstrate the DIMETRA IP Micro System maintenance procedures.
- Describe Network Planning in overview.

REQUISITE KNOWLEDGE

- IP background, RF Fundamentals, Design a DIPM System one

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
DMT3002

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ADDITIONAL DIMETRA SYSTEMS COURSES

DIMETRA IP SYSTEM OVERVIEW

COURSE OVERVIEW
After a brief review of Professional Mobile Radio (PMR) and Terrestrial Trunked Radio (TETRA) technologies, this course will focus on introducing Motorola Solutions' DIMETRA IP Portfolio.

AUDIENCE
Personnel requiring a generic introduction to DIMETRA IP

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe Professional Mobile Radio (PMR) properties and applications.
- Describe the TETRA standard, system structure, modes of operation and TETRA services.
- Identify Motorola's DIMETRA Portfolio, DIMETRA IP system options and services.

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
AAE1404

TETRA PORTFOLIO OVERVIEW

COURSE OVERVIEW
This course provides training to TETRA portfolio overview. Topics in the course give the student information on the Dimetra IP portfolio overview, TETRA radio portfolio overview, TETRA accessories portfolio overview, WAVE 5000 and their features; Customer profiles and markets; and resources to Partner Empower certification.

AUDIENCE
Professionals who wish to gain an overview of the portfolio.

COURSE OBJECTIVES
By the end of this training course, you will be able to:
- Describe the TETRA infrastructure, radios, accessories portfolio and their features.
- Describe WAVE 5000 portfolio.
- Identify vertical markets for sales of TETRA solutions.
- Provide examples of use cases for the TETRA portfolio.
- Locate available resources for Partner Empower certification.

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
DMT0020

NETWORK MANAGEMENT OVERVIEW

COURSE OVERVIEW
This e-Learning course provides an overview of the functions of Configuration and Administration Management, Fault Management and Performance Management. The applications used in each functional area are demonstrated based on business scenarios.

AUDIENCE
System Managers, Operators and Engineers needing an overview of the Network Management Applications used for FCAPS in a Dimetra IP R8.2 system.

COURSE OBJECTIVES
After completing this training course you will be able to:
- Identify the role and purpose of Network Management (NM) within a Dimetra IP System.
- Define the FCAPS structure, and how Motorola Dimetra IP applications are associated with it.
- Identify common navigation features of NM applications within the Dimetra IP system and how to access the applications.
- Define the role of Configuration, Fault and Performance within NM.
- Define key NM application features and tools. ¿ Identify tasks related to Configuration, Fault and Performance using the relevant NM applications.

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **1.5 HOURS**
LMS COURSE CODE:
DCOMP01R82

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA APPLIED NETWORKING

COURSE OVERVIEW
This course provides engineers and technicians with the necessary networking information required for the network components applied in the DIMETRA systems. The course includes overview of the basic networking concepts, network configuration overview of the transport network components and information assurance applied in the DIMETRA systems.

AUDIENCE
Technical System Managers and Network Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe basic IP network hardware and protocols.
- Analyze basic IP network connectivity and addressing.
- Describe DIMETRA Network Transport Subsystem.
- Operate DIMETRA Transport Network Device Management application.
- Describe DIMETRA Master Site VLAN/VRRP Operation.
- Describe Site link, console site link and Inter-zone link connectivity.
- Describe Site link, console site link and Inter-zone link connectivity.
- Describe DIMETRA applied networking in a call processing .
- Describe DIMETRA Information Assurance.
- Describe the Customer Network Integration interfaces
- Describe DIMETRA Data Subsystem

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
DMT1108

DISPATCH COMMUNICATIONS SERVER WORKSHOP

COURSE OVERVIEW
This workshop provides an overview of the DIMETRA Dispatch Communication Server as well as hands on activities in terms of configuration, administration, troubleshooting and maintenance aspects of the DCS server and DCS clients.

AUDIENCE
Field and system engineers who support DCS solution.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe DCS functionality, topology, components and client connectivity.
- Describe DCS solution system limits, throughput and performance.
- Describe how DCS solution is incorporated in DIMETRA call processing.
- Perform configuration of DCS solution components.
- Administer and maintain the DCS solution.
- Perform diagnostic and troubleshooting activities for the DCS solution.
- Perform restoration procedures for DCS solution components in the event of failure.

REQUISITE KNOWLEDGE
- DIMETRA IP D8.2 System Overview (TSYS01R82)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
DMT1112

MOTOMAPPING OPERATION AND ADMINISTRATION

COURSE OVERVIEW
The purpose of this course is to provide operational knowledge of the Intelligent Middleware MotoMapping solution. It captures essential navigational and procedural activities that are used for administering, managing, and utilizing MotoMapping.

AUDIENCE
Personnel responsible for administrative and operational management of Intelligent Middleware applications.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- The goal of this course is to present a spectrum of actions that can be performed in MotoMapping, including preparatory tasks.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
AVL02

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **DIMETRA SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

UNS OPERATIONS AND ADMINISTRATION R4.0

COURSE OVERVIEW

The purpose of this course is to provide the steps to operate and maintain a customer's UNS within their Motorola system (DIMETRA IP). The course should provide system so students can have hands-on practice going through the operation, maintenance, and troubleshooting steps .

AUDIENCE

Partners/Resellers and customers who would be responsible for the operation and maintenance of a customer's UNS within their Motorola system (DIMETRA IP).

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the Features of UNS
- Configure a UNS system
- Identify the UNS tools to administer the system
- Perform routine administration
- Perform troubleshooting

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
DMT2008

DISPATCH CONSOLE PORTFOLIO

OPERATIONAL COMMAND AND CONTROL FROM MULTIPLE POINTS, AT MULTIPLE LEVELS

CONSOLE COURSES

* PLEASE NOTE:

MCC 7000 Series Dispatch Consoles Workshop (CON012) focuses on the consoles application in an M- or L-Core System.

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS CONSOLES

ASTRO® 25 IV&D SYSTEM OVERVIEW

COURSE OVERVIEW

The ASTRO® 25 IV&D System Overview course will provide participants with knowledge and understanding of the ASTRO® 25 IV&D system. This course will address M, L and K Core systems. System architecture, components and features will be explained. In addition, RF and console sites and their architecture, features and components will be discussed. Finally, call processing for voice and mobile data applications will be covered, and an introduction to applications available in the ASTRO® 25 system will be provided.

AUDIENCE

Core Technicians, Site Technicians, Console Technicians, Core Managers.

COURSE OBJECTIVES

After completing this course, the student will be able to:

* Understand the general architecture of an ASTRO® 25 IV&D Radio System
* Understand key features of available in the ASTRO® 25 IV&D Radio System
* Understand the components of the ASTRO® 25 Zone Core
* Understand site components in the ASTRO® 25 system
* Understand the features,capabilities and components of the MCC7000 series dispatch consoles
* Understand concepts of Mobility and Call Processing in the ASTRO25
* Understand the applications for managing the ASTRO® 25 system

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
AST1038

ASTRO® 25 DOMAIN CONTROLLER ADMINISTRATION

COURSE OVERVIEW

This workshop covers the administrator and management functions in the ASTRO® 25 Domain Controller and how these functions affect both users and computers in the ASTRO® 25 system. Learning activities in this course focus on how to use the Domain Controllers to authenticate, administer, and authorize users and devices in the ASTRO® 25 System. Group Policies and Organisational Units, RADIUS, and DNS structure will be addressed during this course.

AUDIENCE

Console Technicians, System Managers

COURSE OBJECTIVES

After completing this course, the student will be able to:

* Understand the Domain Controller server platform
* Understand the DNS Hierarchy in the ASTRO® 25 system
* Implement RADIUS authentication in applicable devices in an ASTRO® 25 system.
* Use Active Directory to control users in the ASTRO® 25 system.
* Understand Group Policy objects and how they impact users in the ASTRO® 25 Domain.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

* ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
AST2015

MCC 7000 SERIES DISPATCH CONSOLES WORKSHOP

COURSE OVERVIEW

This course familiarizes participants with installation, configuration, management and repair of MCC 7000 series dispatch consoles, Archiving Interface Servers, AUX I/O servers, and Conventional Channel Gateways. The focus is on a detailed discussion of console hardware and the installation and configuration of the MCC 7000 series consoles which consist of the MCC 7100 and MCC 7500 dispatch console.

AUDIENCE

System Administrators, Console Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

* Install and configure the hardware and software components of the MCC 7000 Series Dispatch Consoles Subsystem
* Perform MCC 7000 Series site connectivity and bandwidth management
* Perform System Administrator functions using the MCC 7000 Series Administrator software
* Troubleshoot installation and configuration problems for the MCC 7000 Series Dispatch Consoles

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

* Bridging the Knowledge Gap (ACT100E or ACT101E)
* Networking Essentials in Communication Equipment (NST762)
* ASTRO® 25 Systems Applied Networking (NWT003)

Required:
* ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
CON012

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **CONSOLES**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 NICE LOGGER INTEGRATION

COURSE OVERVIEW
This workshop covers the tasks and knowledge to implement a NICE logging solution in an ASTRO® 25 system. Learning activities in this course focus on both initial installation and configuration, and operation and troubleshooting the components after installation. Participants will be provided with an opportunity to demonstrate, with available lab equipment, tasks required to install and maintain the related subsystem components.

AUDIENCE
Console Technicians, System Managers

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the functionality of the different components and applications required for NICE Radio logging
- Install and configure required components into an ASTRO® 25 system
- Perform administrative tasks necessary for operation of the logging solution
- Use system tools and applications to identify potential causes of failure of the logging solution

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- ASTRO® 25 IV&D System Overview (AST1038)
- MCC7000 Series Dispatch Console Workshop (CON012)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
AST1002

MCC7500 OPERATOR AND ADMINISTRATION

COURSE OVERVIEW
This course provides students with an introduction to the dispatch console, its basic operation and tailored job aids which will be available for assistance in operation. Through facilitation and hands-on activities, the user learns how to perform common tasks associated with the console operation.

AUDIENCE
Dispatch Console Operators, System Administrators for Dispatch Console Operators

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Identify the hardware components that make up the dispatcher position
- Describe the purpose of the Elite Dispatch application
- Identify elements that make up the menu and toolbar structure within the Elite Dispatch software
- Perform dispatcher operations:
  - Communicate with radios: transmit and receive calls within group and individual communications categories
  - Perform advanced signaling features
  - Perform basic procedures within screen configurations
  - Perform basic procedures within resource groups

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
DCOMP11R8

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **CONSOLES**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

DIMETRA D9.0 MCC7500 OPERATOR

COURSE OVERVIEW

This course provides students with an introduction to the dispatch console, its basic operation and tailored job aids which will be available for assistance in operation. Through facilitation and hands-on activities, the user learns how to perform common tasks associated with the console operation.

AUDIENCE

Dispatch Console Operators

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Identify the hardware components that make up the dispatcher position
- Describe the purpose of the Elite Dispatch application
- Identify elements that make up the menu and toolbar structure within the Elite Dispatch software
- Perform dispatcher operations:
  - Communicate with radios: transmit and receive calls within group and individual communications categories
  - Perform advanced signaling features
  - Perform basic procedures within screen configurations
  - Perform basic procedures within resource groups

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
TSYS32R90

DIMETRA D9.0 MCC7500 ADMINISTRATOR

COURSE OVERVIEW

This course provides students with an introduction to the Elite Admin application. It enables system administrators to use the software to set up configurations for the Elite Dispatch desktops that organize resources to meet specific user needs. Through facilitation and hands-on activities, the user learns how the configurations created in the Elite Admin can be saved and then distributed among the Elite Dispatch desktops.

AUDIENCE

System Administrators for Dispatch Console Operators

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Identify the hardware components that make up the dispatcher position
- Describe the Purpose of the Elite Admin application
- Identify elements that make up the menu and toolbar structure within the Elite Admin software
- Perform Elite Admin Configurations

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DIMETRA MCC 7500 Operator Course (TSYS32R90)

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
TSYS33R90

DIMETRA D9.0 MCC 7500C INSTALLATION, CONFIGURATION, TROUBLESHOOTING, AND MAINTENANCE COURSE

COURSE OVERVIEW

During this workshop students will perform installation, configuration and troubleshooting procedures relating to the MCC 7500C dispatch console on a live DIMETRA D9.0 system.

AUDIENCE

Control Room Managers, System Engineers and Network Administrators responsible for the installation, configuration and maintenance of control rooms containing dispatch consoles.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Install and configure the hardware and software components of the MCC 7500C Dispatch Console subsystem.
- Troubleshoot installation and configuration problems for the MCC 7500C Dispatch Console.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DIMETRA MCC 7500 Operator Course (TSYS32R90)
- DIMETRA D9.0 MCC7500 Administrator (TSYS33R90)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
TSYS31R90

BASE STATIONS COURSES

MTS 2/MTS 4 INSTALLATION, CONFIGURATION, TROUBLESHOOTING & MAINTENANCE WORKSHOP (TBTS01)	**45**

MTS 1 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE (TBTS04)	**45**

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS **BASE STATIONS**

MTS 2/MTS 4 INSTALLATION, CONFIGURATION, TROUBLESHOOTING & MAINTENANCE WORKSHOP

COURSE OVERVIEW

This course includes the theoretical and practical aspects of configuring, maintaining and troubleshooting the MTS 1 base station in a DIMETRA IP system. The course includes the practical use of service software and the man-machine. Practical sessions include the testing and configuration of the MTS 2/MTS 4.

AUDIENCE

Field Engineers responsible for installing and configuring and maintaining MTS 2/MTS 4 equipment.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the function of the MTS 2/MTS 4 within a DIMETRA System.
- Identify and describe the function of MTS 2/MTS 4 components.
- Describe MTS 2/MTS 4 installation procedures.
- Execute MMl commands using local and telnet access.
- Perform MTS 2/MTS 4 verification test procedures.
- Download configuration and application files using the BTS Service Software and Software Download Manager application.
- Perform MTS 2/MTS 4 Ki loading procedures.
- Perform MTS 2/MTS 4 troubleshooting using BTS Service Software.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- RF and Field or Bench service background

	INSTRUCTOR-LED LENGTH: **4 DAYS** LMS COURSE CODE: **TBTS01**

MTS 1 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE

COURSE OVERVIEW

This course includes the theoretical and practical aspects of configuring, maintaining and troubleshooting the MTS 1 base station in a DIMETRA IP system. The course includes the practical use of service software and the man-machine. Practical sessions include the testing and configuration of the MTS 1.

AUDIENCE

Field Engineers responsible for installing and configuring and maintaining MTS 1 equipment.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the function of the MTS 1 within a DIMETRA System.
- Identify and describe the function of MTS 1 components.
- Describe MTS 1 installation procedures.
- Execute MMI commands using local and telnet access.
- Perform MTS 1 verification test procedures.
- Download configuration and application files using the BTS Service Software and Software Download Manager application.
- Perform MTS 1 Ki loading procedures.
- Perform MTS 1 troubleshooting using BTS Service Software.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- RF and Field or Bench service background

	INSTRUCTOR-LED LENGTH: **4 DAYS** LMS COURSE CODE: **TBTS04**

SUBSCRIBER COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

APX SUBSCRIBER FAMILY

APX CPS PROGRAMMING AND TEMPLATE BUILDING

APX7001V   INSTRUCTOR-LED 2 DAYS

APX TECHNICAL SUBSCRIBER ACADEMY

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
APX010
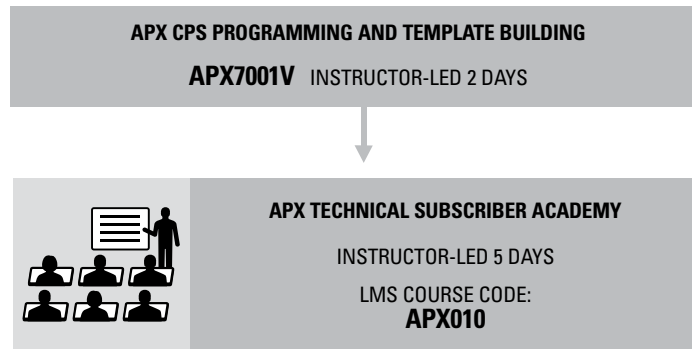
CURRICULUM COMPLETE

PARTICIPANT SHOULD BE ABLE TO PROGRAM, DEVELOP FLEET TEMPLATES, AND PERFORM MAINTENANCE ON ALL MEMBERS OF THE XTS/XTL FAMILY OF RADIOS. MAINTENANCE WILL INCLUDE TESTING, ALIGNMENTS, DISASSEMBLY/RE-ASSEMBLY, SUBMERGIBILITY TEST, MOBILE RADIO INSTALLATION, AND TROUBLESHOOT TO THE BOARD LEVEL.

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

CPS PROGRAMMING AND TEMPLATE BUILDING OVERVIEW

COURSE OVERVIEW

This course provides communications management personnel and technicians with the knowledge and tools needed to program the radio units in the most efficient way depending on the system, features and options they require. The parameters and exercises shown in the class apply to a wide number of portable and mobile radios, including XTS 5000, XTS 3000, XTS 2500, XTS 1500, XTL 5000, XTL 2500, XTL 1500, MTS 2000, MCS 2000, the SPECTRA family, and the Professional Series.

AUDIENCE

Radio Technicians, System Managers

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Program the basic parameters of any radio using the Customer Programming Software (CPS)
- Program the specific parameters of any radio related with the system where the user is going to work: conventional, single site trunking, Simulcast, AMSS, SmartZone or ASTRO® 25
- Demonstrate knowledge of the options and features that can be programmed in a radio
- Create templates for the programming of subscribers in a system

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Basic features and options of two-way radios basic concepts of trunking

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
ADT001V

APX™ CPS PROGRAMMING AND TEMPLATE BUILDING

COURSE OVERVIEW

The APX CPS Programming and Template Building course provides communications management personnel and technicians with the knowledge and training necessary to build templates and program the APX family of radios in the most efficient way possible.

AUDIENCE

Radio Technicians, System Managers

COURSE OBJECTIVES
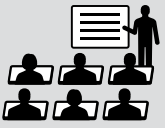
After completing this course, the student will be able to:
- Build the APX family of programming templates using the APX CPS Programming Software
- Program the specific parameters related to the various sytem types in which the subscriber unit will operate: Conventional, Single Site Trunking, Simulcast, SmartZone or ASTRO® 25 IV&D TDMA and ASTRO® 25 IV&D X2
- Demonstrate knowledge of the APX CPS navigation, tools, options and features that make effeicient programming of the radio possible
- Demonstrate a complete understanding of the various APX CPS programming efficiency tools, such as: Cloning, Drag and Drop, Codeplug Comparison Tool, Radio Flashing, Advance System Key Administrator, Codeplug Merging and many others

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Experience with the basic features and options of two-way radios and the basic concepts of trunking

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
APX7001V

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

APX™ TECHNICAL SUBSCRIBER ACADEMY

COURSE OVERVIEW

Participants will learn the capabilities, features and functions of the APX family of radios as well as how to correctly complete performance checks, radio alignments, disassembly/reassembly, maintenance and troubleshooting. This academy will also focus on a detailed theory of operation for the APX family of radios. The APX Academy will also cover in detail: Radio Flashing, Encryption, Key Loading (Including configuring the APX radio for OTAR), Programming over P25 (Over the Air Programming), Advanced System Key Management, Vacuum and Submersibility Testing, APX Mobile Radio Installation and many other special setup or configuration modes with the radios. In addition to lecture, large amounts of hands-on with scenario based lab work will be used to reinforce knowledge transfer. This academy will cover in detail all models within the APX family of radios.

AUDIENCE

Radio Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Distinguish between the features and specifications of all available radios within the APX family of subscribers
- Verify the correct operation of the various radios within the APX family of subscribers by completing Performance Checks and Alignment procedures
- Maintain and troubleshoot radios within the APX family of subscribers
- Disassemble and reassemble various APX subscriber radios using the documented procedures

- Verify the housing integrity of an APX portable radio
- Flash upgrade the various radios within the APX family of subscribers
- Interpret the circuit theory of operation and use this information to isolate faults found at both the board and the component level

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Communication Systems Concepts (NST021)
- Basic Radio (ARDS004)
- Theory of Radio Operations (RCS003E)

Required:

- APX CPS Programming and Template Building (APX7001V)
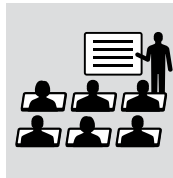
INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
APX010

APX™ RADIO MANAGEMENT WORKSHOP

COURSE OVERVIEW

Participants will learn the capabilities, features, and functions of the APX™ Radio Management Suite. This course will cover an APX CPS overview, APX Radio Management Overview, Basic Networking Primer, ASTRO® 25/CEN Networking and UNS Overview, and APX Radio Management Installation, Configuration, and Operations. In addition, the course will contain labs that will focus on installation, configuration, and operation using both wired and POP25 updates to APX Subscriber radios in both a LAN and WAN environment.

### AUDIENCE

Radio Technicians, System Managers, Radio Programmers

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the APX Radio Management Suite operations and required software and hardware components
- Describe all deployment options for APX Radio Management Suite
- Configure a basic APX Radio Management system using a single PC, multiple PCs on a LAN, and multiple PCs on a WAN.
- Troubleshoot common APX Radio Management Installation, configuration, and operation issues
- Use Best Practices to implement and optimise Radio Management Performance

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- APX™ CPS Programming and Template (APX7001V Building)
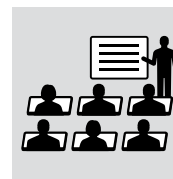
INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
RDS2017

CLICK HERE TO VIEW THE
SCHEDULE

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

TETRA SUBSCRIBER END-USER OPERATOR COURSES

AVAILABLE FOR ST7000, MTP3000 SERIES, MTP6000 SERIES, MTM5000 SERIES, MTP8000EX, AND ADVISOR TPG2200 TETRA TWO-WAY PAGER.

Click here to go to the LMS to get additional information and to register for the following subscriber courses. The course description to the right applies to all courses listed below.

ST7000 END-USER OPERATOR (DMT1083)

MTP3000 END-USER OPERATOR (DMT1054)

MTP6000 END-USER OPERATOR (DMT1068)

MTM5000 END-USER OPERATOR (DMT1070)

MTP8000EX END-USER OPERATOR (DMT1069)

ADVISOR TPG2200 TETRA TWO-WAY PAGER END-USER OPERATOR (DMT0029)

OTHER SUBSCRIBER COURSES

Click here to go to the LMS to get additional information and to register for the following subscriber courses.

GENERAL COURSES

TETRA TERMINAL PROGRAMMING (CPS PLUS) (TTER01PLUS)

TRACES WORKSHOP (TMSC04)

INTEGRATED TERMINAL MANAGEMENT (REMOTE PROGRAMMING) (DMT1050)

TETRA ACCESSORIES OVERVIEW (DMT1018)

TETRA RADIO OVERVIEW (AAE1403)

COURSE OVERVIEW
Our subscriber end-user operator courses will provide the background information and the knowledge equired to allow delegates to be fully conversant with the features and functions of their chosen subscriber. It will provide users with an introduction to their subscriber, its operation and builds on theoretical instruction with practical exercises designed to allow delegates to practice and confirm their understanding of all features and functions covered in the course.

AUDIENCE
Radio end-user operators

COURSE OBJECTIVES
The goal of the End User Operator course is to keys and controls.
- Describe radio preparation including assembly and battery charging.
- Make all available Trunked Mode and Direct Mode calls.
- List optional features available to the subscriber.
- Perform basic subscriber troubleshooting.

REQUISITE KNOWLEDGE
None.

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

TETRA SUBSCRIBER SERVICE TRAINING

[Click here](#) to go to the LMS to get additional information and to register for the following subscriber service training. The course description to the bottom applies to all courses listed below.

MTM5X00 / MTM800FUG / MTM800FUG ET LEVEL 2 SERVICE TRAINING (DMT0018)

ST7000 LEVEL 2 SERVICE TRAINING (DMT1025)

MTP8000EX SERIES LEVEL 2 SERVICE TRAINING (DMT1023)

MTP3000 SERIES LEVEL 2 SERVICE TRAINING (DMT0001)

MTP6000 SERIES L2 SERVICE TRAINING (DMT0010)

ADVISOR TPG2200 LEVEL 2 SERVICE TRAINING (DMT0030)

COURSE OVERVIEW

These courses are intended to train Motorola Solutions authorised service personnel on how to carry out Level-Two service on the respective devices. The training includes a comprehensive practical exercise designed to allow delegates to practice and conform their understanding of all features and functions covered in these courses.

AUDIENCE

Radio Technicians

COURSE OBJECTIVES

The goal of the Service Training course is to teach the participants to:

- Understand the product specifications.
- Program the device using the CPS.
- Initiate performance tests.
- Tune the radio.
- Disassemble and reassemble the radio.

REQUISITE KNOWLEDGE

- Radio Communication Fundamentals
- Knowledge of basic two-way FM and Digital Communications

MOTOTRBO™ SUBSCRIBER AND REPEATER TECHNICAL SERVICE ACADEMY

COURSE OVERVIEW

Participants will learn the capabilities, features and functions of the MOTOTRBO™ family of radios and repeaters as well as how to correctly complete performance checks, radio alignments, disassembly/reassembly, maintenance, and troubleshooting. This Academy will also focus on the detailed theory of operation. In addition to lecture, large amounts of hands on, scenario based lab work will be used to reinforce knowledge transfer. This Academy will cover in detail different models within the MOTOTRBO™ family of radios and repeaters.

AUDIENCE

Radio Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Distinguish between the features and specifications of the MOTOTRBO™ portable and mobile radios and repeaters.
- Verify the correct operations of the MOTOTRBO™ radios and repeaters by completing Performance Checks and Alignment procedures.
- Maintain and troubleshoot MOTOTRBO™ radios and repeaters.
- Disassemble and reassemble the radios using the documented procedures.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- CEDMEL2000 - Introduction to MOTOTRBO™ Systems for Technicians

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE: **TBO300**

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **SUBSCRIBERS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

Si 500 RADIO MANAGEMENT R2.X

COURSE OVERVIEW

This course provides an overview and presentation of the basic functions available in Radio Management tool from the perspective of Si devices management. It includes video simulations of typical operations performed in Radio Management on Si devices, together with useful tips and practical examples.

AUDIENCE

Radio Management users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the Radio Management application and its features.
- Lead users through their first logging.
- Demonstrate typical operations performed in Radio Management on Si devices.

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
PSA1053

Si 500 END USER TRAINING

COURSE OVERVIEW

This course provides an overview and presentation of the basic functions available in Radio Management tool from the perspective of Si devices management. It includes video simulations of typical operations performed in Radio Management on Si devices, together with useful tips and practical examples.

AUDIENCE

Radio Management users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the Radio Management application and its features.
- Lead users through their first logging.
- Demonstrate typical operations performed in Radio Management on Si devices.

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **0.5 HOURS**
LMS COURSE CODE:
PSA1054

PUBLIC SAFETY LTE LEX L10i MISSION CRITICAL HANDHELD OVERVIEW

COURSE OVERVIEW

The Public Safety LTE LEX L10i Mission Critical Handheld Overview instructor-led course presents an overview of the LEX L10i Mission Critical Handheld, including hands on practice of managing and validating devices using available methods. Maintaining and troubleshooting the LEX L10i is also covered.

AUDIENCE

Field Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe LEX L10i features.
- Perform user operation procedures on the LEX L10i.
- Perform management procedures on the LEX L10i.
- Perform validation procedures on the LEX L10i.
- Perform maintenance procedures on the LEX L10i.
- Perform troubleshooting procedures on the LEX L10i.

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
LTE1024

CLICK HERE TO VIEW THE SCHEDULE

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

PUBLIC SAFETY LTE VEHICULAR SUBSCRIBER MODEM WORKSHOP

COURSE OVERVIEW

The Public Safety LTE Vehicular Subscriber Modem User programme is an instructor-led training course describing the LTE Vehicle Subscriber Modem including a hands-on practice of the modem operation. The course is designed to provide an overview of the LTE Vehicle Subscriber Modem, how it is installed and some of the technical issues that may arise after installation.

AUDIENCE

First Responders, End Users, Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recognize and describe the Vehicle Subscriber Modem (VSM).
- Describe the components used with the VSM.
- Understand the installation requirements.
- Understand where the VSM fits within the Public Safety LTE system.
- Recognize the VSM Status Utility and understand its function.
- Troubleshoot general connection problems.
- Understand the meaning of the different LED indicators.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Public Safety LTE System Overview (AAE1603)

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
LTE1023

CLICK HERE TO VIEW THE
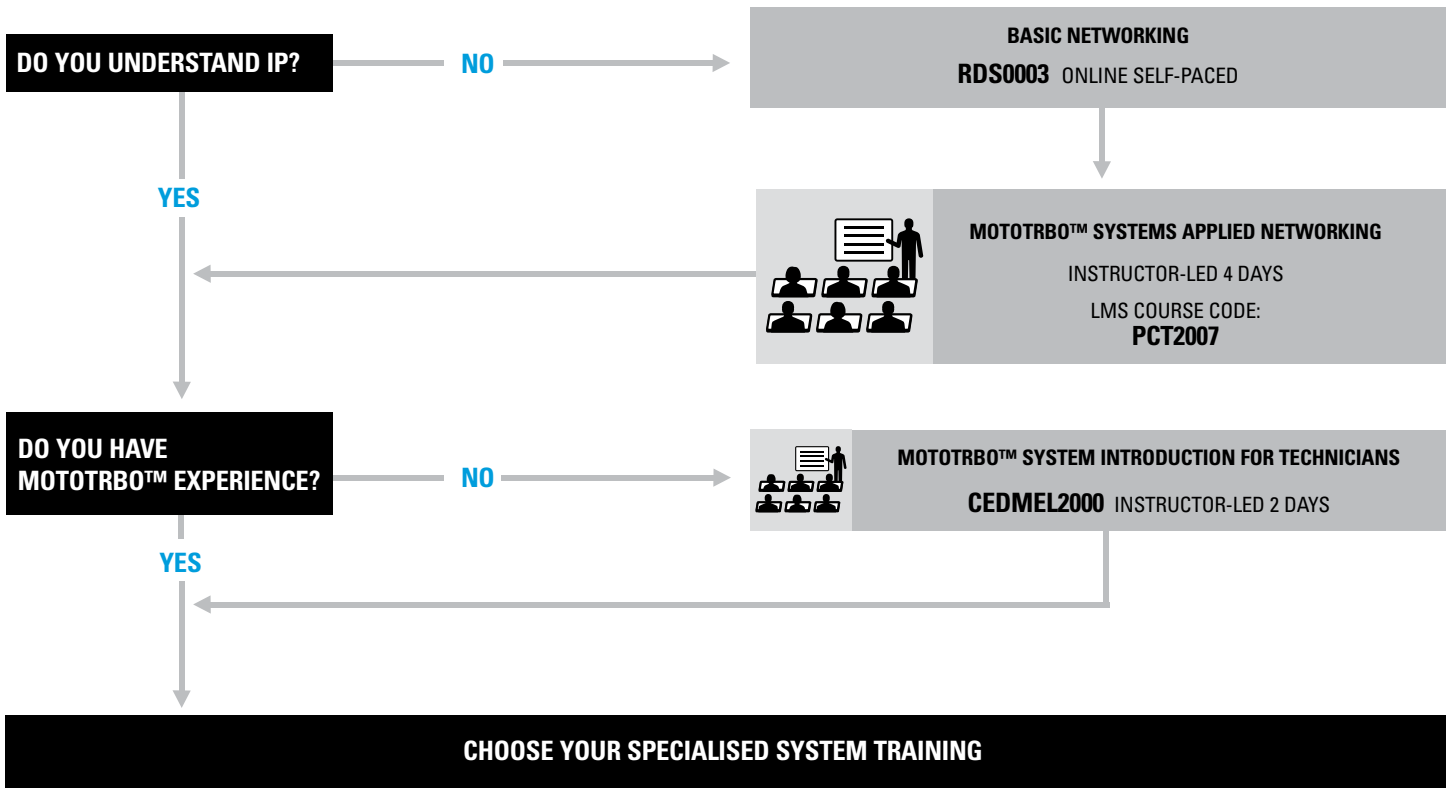**SCHEDULE**

MOTOTRBO™ SYSTEMS PORTFOLIO

MOTOTRBO™ COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS **MOTOTRBO™**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the North America Training Services Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ TECHNICAL TRAINING CURRICULUM
BASED ON YOUR CURRENT IP AND MOTOTRBO™ EXPERIENCE

DO YOU UNDERSTAND IP?

NO

BASIC NETWORKING

RDS0003 ONLINE SELF-PACED

YES

MOTOTRBO™ SYSTEMS APPLIED NETWORKING

INSTRUCTOR-LED 4 DAYS

LMS COURSE CODE:
PCT2007

DO YOU HAVE MOTOTRBO™ EXPERIENCE?

NO

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

CEDMEL2000 INSTRUCTOR-LED 2 DAYS

YES

CHOOSE YOUR SPECIALISED SYSTEM TRAINING

MOTOTRBO™ DESIGN AND DEPLOY FOR CONNECT PLUS

INSTRUCTOR-LED
5 DAYS

AEL3601

MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY MAX

INSTRUCTOR-LED
5 DAYS

PCT2010

MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY PLUS, LINKED CAPACITY PLUS AND IP SITE CONNECT

INSTRUCTOR-LED
5 DAYS

AEL2304

CURRICULUM COMPLETE
PARTICIPANT SHOULD BE ABLE TO DESCRIBE THE KEY CHARACTERISTICS OF THE SYSTEM, DESCRIBE THE KEY CONFIGURATION ITEMS IN BOTH SUBSCRIBERS AND REPEATERS, PROGRAM EFFECTIVE REPEATER AND SUBSCRIBER CODEPLUG TEMPLATES FOR THE SYSTEM, AND DESCRIBE THE APPLICABLE IP NETWORKING REQUIREMENTS WHEN DESIGNING A SYSTEM.

RADIO SOLUTIONS **MOTOTRBO™**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ TECHNICAL TRAINING CURRICULUM
FOR SUBSCRIBER / REPEATER MAINTENANCE TECHNICIAN

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

CEDMEL2000 INSTRUCTOR-LED 2 DAYS

MOTOTRBO™ SUBSCRIBER AND REPEATER TECHNICAL SERVICE ACADEMY

INSTRUCTOR-LED 4 DAYS

LMS COURSE CODE:
TBO300
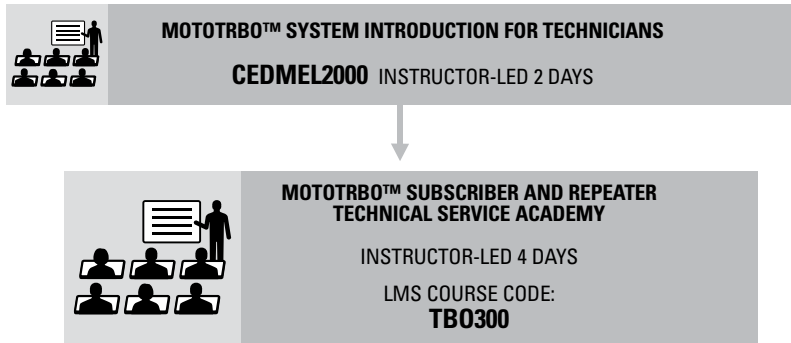
CURRICULUM COMPLETE

PARTICIPANT WILL LEARN THE COMMON MOTOTRBO™ FEATURES AND CAPABILITIES TO DESIGN AND DEPLOY MOTOTRBO™ SYSTEMS. PARTICIPANT SHOULD BE ABLE TO COMPLETE PERFORMANCE CHECKS, RADIO ALIGNMENTS, DISASSEMBLY/REASSEMBLY, MAINTENANCE, AND TROUBLESHOOTING OF VARIOUS MOTOTRBO™ RADIO TYPES.

RADIO SOLUTIONS **MOTOTRBO™**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the North America Training Services Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

COURSE OVERVIEW

This is an introductory course to the MOTOTRBO™ system theory of operation, key components and topologies. MOTOTRBO™ Systems Introduction for Technicians gives the Professional-Level Empower Certification seekers all the basic information they need to know about common MOTOTRBO™ features and capabilities, along with system design and deploy principles. Upon successfully completing this course, individuals should be ready to take the more advanced Design and Deploy courses for IP Site Connect, Capacity Plus (Multi-Site and Single Site), Capacity Max and/or Connect Plus.

AUDIENCE

Anyone who will sell, design, configure, deploy, or maintain MOTOTRBO™ Digital Radio Systems. This would include, but is not limited to: Design Engineers, Communication System Technicians, Technical Support Personnel and Service Technicians.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the different components available to build your MOTOTRBO™ system.

- Explain the MOTOTRBO™ Modes and Systems.

- Describe the various Data Application's capabilities and everyday uses within the MOTOTRBO™ systems.

- Describe MOTOTRBO™'s Digital and Analog features.

- Explain system and channel capacity planning.

- Explain MOTOTRBO™ IP network design considerations.

- Describe organisational requirement and resources needed to design the fleetmap.

- Describe the use and purpose of various tools such as: Radio Management, Tuner, RDAC, Air Tracer, Site Survey and 3rd Party Application Tools.

- Navigate the main screens of the Customer Programming Software (CPS) needed to configure the radios and repeaters.

REQUISITE KNOWLEDGE

Participants should have a basic understanding of radio communication fundamentals.

Knowledge of basic two-way FM and digital communications theory.

- RDS0003 – Basic Networking

- RDS0002 – Basic RF

- RDS0004 – Basic Radio

- AAE1402 – Professional and Commercial Radios (PCR) Portfolio Overview

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
CEDMEL2000

MOTOTRBO™ SYSTEMS APPLIED NETWORKING

COURSE OVERVIEW

The MOTOTRBO™ Systems Applied Networking provides technicians with the necessary information required for understanding the typical networking requirements for implementing a variety or MOTOTRBO™ solutions. The course includes familiarization/review of basic networking concepts and MOTOTRBO™-specific networking requirements. This course will focus on specific configurations for IP Site Connect, Linked Capacity Plus, and Connect Plus trunking systems.

AUDIENCE

Technical System Managers and technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recall Basic Networking Concepts

- Indentify recommended netwrk components for MOTOTRBO™ systems

- Define LAN/WAN topologies for MOTOTRBO™ systems

- Perform backup, restore and recovery of recommended network components

- Identify network security concepts for MOTOTRBO™ systems

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Networking Essentials in Motorola Solutions Communication Systems (NST762)

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
PCT2007

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **MOTOTRBO™**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ RADIO MANAGEMENT WORKSHOP

COURSE OVERVIEW
PThe MOTOTRBO™ Radio Management 2.0 Workshop course provides technicians with the necessary information and practice to use the MOTOTRBO™ Radio Management 2.0 programming tool effectively.

AUDIENCE
System Managers and Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Deploy and use RM 2.0 in a variety of real-world scenarios.
- Create and maintain configurations for basic MOTOTRBO™ Configurations (Connect Plus and Capacity Max excluded).
- Utilise Wi-Fi programming within RM 2.0.
- Use the RM Import and Export feature for database population.
- Convert existing radio templates and codeplugs to RM 2.0 Configurations.
- License and activate Radio and Application features.
- Use advanced features such as Data Mining.
- Use RM 2.0 to ease mass-deployments of subscribers.

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- PCT1032 MOTOTRBO™ Radio Management 2.0 Configuration Mode completion
- Networking Essentials or Network + Certification
- A high-level working knowledge of IP networking is very important

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
PCT2022

CLICK HERE TO VIEW THE SCHEDULE

MOTOTRBO™ SUBSCRIBER AND REPEATER TECHNICAL SERVICE ACADEMY

COURSE OVERVIEW
Participants will learn the capabilities, features and functions of the MOTOTRBO™ family of radios and repeaters as well as how to correctly complete performance checks, radio alignments, disassembly/reassembly, maintenance, and troubleshooting. This Academy will also focus on the detailed theory of operation. In addition to lecture, large amounts of hands on, scenario based lab work will be used to reinforce knowledge transfer. This Academy will cover in detail different models within the MOTOTRBO™ family of radios and repeaters.

AUDIENCE
Radio Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Distinguish between the features and specifications of the MOTOTRBO™ portable and mobile radios and repeaters
- Verify the correct operations of the MOTOTRBO™ radios and repeaters by completing Performance Checks and Alignment procedures
- Maintain and troubleshoot MOTOTRBO™ radios and repeaters
- Disassemble and reassemble the radios using the documented procedures

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- CEDMEL2000 - Introduction to MOTOTRBO™ Systems for Technicians

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
TBO300

MOTOTRBO™ CAPACITY MAX DESIGN AND DEPLOY

COURSE OVERVIEW
MOTOTRBO™ Capacity Max Design and Deploy begins by covering the design process for a Capacity Max Radio system.   Under the Instructor's guidance, participants will have the opportunity to practice designing and deploying a small scale, 2 Site/3 Channel, Capacity Max system in a safe classroom environment. This course will also cover how to configure Capacity Max using Radio Management 2.0 Configuration Mode.
In order to get the most of the hands-on activities, Participants MUST bring their own laptop to class with the latest RM 2.0 Configuration Mode software loaded. Please download this software from MOL (Motorola Solutions Online).

AUDIENCE
System Managers and Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Design a simple a 1-System 2 Site/3 Channel Capacity Max system
- Calculate Capacity Max capacity and bandwidth using a Case Scenario and System Design tools.
- Using Radio Management Configuration Mode, configure your radios and infrastructure.
- Deploy a 1-System 2 Site/3 Channel Capacity Max system.
- Using System Advisor, learn the fundamentals of troubleshooting and maintaining a Capacity Max system
- Execute Radio Management database backup and restore
- Describe how to optimise a Capacity Max system

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- CEDMEL2000 - MOTOTRBO™ System Introduction for Technicians.
- PCT1047 – MOTOTRBO™ Capacity Max Technical Overview (OLT)
- PCT1046 – MOTOTRBO™ Capacity Max Theory of Operations (OLT)
- PCT1032 – Radio Management 2.0 Configuration Mode (OLT)
- Understanding IP Network Addressing
- Knowledge of RF Propagation modelling tools

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
PCT2010

RADIO SOLUTIONS **MOTOTRBO™**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the North America Training Services Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY PLUS

COURSE OVERVIEW

MOTOTRBO™ Capacity Plus Design and Deploy training covers the key components and architectures of MOTOTRBO™ Capacity Plus Radio systems. Participants will be able to describe the MOTOTRBO™ Capacity Plus system, its capabilities, system components, and data applications. Participants will also be able to describe various MOTOTRBO™ Capacity Plus system topologies. They will learn how to design and deploy a MOTOTRBO™ Capacity Plus radio system. This course will also cover how to configure a MOTOTRBO™ Capacity Plus system using MOTOTRBO™ Customer Programming Software (CPS).

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the MOTOTRBO™ Capacity Plus system, its capabilities, system components, and data application.
- Describe the MOTOTRBO™ Capacity Plus theory of operation.
- Describe the available MOTOTRBO™ Capacity Plus topologies.
- Learn the steps needed to configure a Capacity Plus system using MOTOTRBO™ CPS to program the subscribers and repeaters.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- RDS0003 – Basic Networking
- RDS0002 – Basic RF
- RDS0004 - Basic Radio
- AAE1402 – Professional and Commercial Radios (PCR) Portfolio Overview
- CEDMEL2000 – MOTOTRBO™ System Introduction for Technicians

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
CEDMEL2600AEL

CLICK HERE TO VIEW THE SCHEDULE

MOTOTRBO™ DESIGN AND DEPLOY FOR LINKED CAPACITY PLUS

COURSE OVERVIEW

MOTOTRBO™ Linked Capacity Plus Design and Deploy training introduces the key components and architectures of MOTOTRBO™ Linked Capacity Plus Radio systems. Participants will be able to describe the MOTOTRBO™ Linked Capacity Plus system, its capabilities, system components, and data applications. Participants will also be able to describe the MOTOTRBO™ Linked Capacity Plus system topology. They will learn what's involved with Designing and Deploying a MOTOTRBO™ Linked Capacity Plus radio system. This course will also cover how to configure a MOTOTRBO™ Linked Capacity Plus system using MOTOTRBO™ Customer Programming Software (CPS).

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the MOTOTRBO™ Linked Capacity Plus system, its capabilities, system components, and data application.
- Describe the MOTOTRBO™ Linked Capacity Plus theory of operation.
- Describe the available MOTOTRBO™ Linked Capacity Plus topologies.
- Learn the steps needed to configure a Linked Capacity Plus system using MOTOTRBO™ CPS to program the subscribers and repeaters.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- RDS0003 – Basic Networking
- RDS0002 – Basic RF
- RDS0004 - Basic Radio
- AAE1402 – Professional and Commercial Radios (PCR) Portfolio Overview
- CEDMEL2000 – MOTOTRBO™ System Introduction for Technicians

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
AEL2601AEL

MOTOTRBO™ DESIGN AND DEPLOY FOR IP SITE CONNECT

COURSE OVERVIEW

MOTOTRBO™ IP Site Connect Design and Deploy training introduces the key components and architectures of the MOTOTRBO™ IP Site Connect radio systems. Participants will be able to describe the MOTOTRBO™ IP Site Connect system and its capabilities, system components, and data applications capabilities. Participants will also be able to describe various MOTOTRBO™ IP Site Connect system topologies. Participants will learn how to design and deploy a MOTOTRBO™ IP Site Connect radio system. This course will also cover how to configure a MOTOTRBO™ IP Site Connect System using MOTOTRBO™ Customer Programming Software. This course was designed for individuals who already have a good understanding of MOTOTRBO™ systems, but who want to now focus on IP Site Connect.

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the MOTOTRBO™ Capacity Plus system, its capabilities, system components, and data application.
- Describe the MOTOTRBO™ Capacity Plus theory of operation.
- Describe the available MOTOTRBO™ Capacity Plus topologies.
- Learn the steps needed to configure a Capacity Plus system using MOTOTRBO™ CPS to program the subscribers and repeaters.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- RDS0003 – Basic Networking
- RDS0002 – Basic RF
- RDS0004 - Basic Radio
- AAE1402 – Professional and Commercial Radios (PCR) Portfolio Overview
- CEDMEL2000 – MOTOTRBO™ System Introduction for Technicians

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
AEL2600AEL

RADIO SOLUTIONS **MOTOTRBO™**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY PLUS, LINKED CAPACITY PLUS AND IP SITE CONNECT

COURSE OVERVIEW

MOTOTRBO™ Design and Deploy training covers the key components and architectures of MOTOTRBO Capacity Plus, Linked Capacity Plus and IP Site Connect Radio systems. You will be able to describe the different MOTOTRBO systems, their capabilities, system components and data applications. You will also learn how to select the best MOTOTRBO system to meet your customer's needs. The goal of this program is to give you an opportunity to practice designing a MOTOTRBO system including fleetmapping, bandwidth calculations and topology drawing. You will configure the subscribers and repeaters using MOTOTRBO Customer Programming Software (CPS). A basic introduction to Radio Management and Over-the-Air Programming will be covered as well.

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the MOTOTRBO Capacity Plus, Linked Capacity Plus and IP Site Connect systems, their capabilities, system components, and data application.
- Describe the MOTOTRBO theory of operation.
- Identify the available MOTOTRBO modes and topologies.
- Configure a Capacity Plus, Linked Capacity Plus or IP Site Connect system using MOTOTRBO CPS to program the subscribers and repeaters.
- Design a Capacity Plus, Linked Capacity Plus and IP Site Connect system, given a sample case study.
- Explain the pre-deployment and deployment steps for MOTOTRBO.
- Identify the advantages that Radio Management provides.
- Navigate MOTOTRBO Radio Management screens.
- Explain how to manage multiple MOTOTRBO radios simultaneously.

REQUISITE KNOWLEDGE

Prior to attending this training, student should have obtained:
- MOTOTRBO Systems Technical Associate Certificate

REQUIRED

- Student must bring his own laptop to class every day. There are in-class hands-on exercises on the Customer Programming Software (CPS) and the electronic version of the MOTOTRBO System Planner.
- Student must have own Learning Management System (LMS) account.

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
AEL2304

MOTOTRBO™ CONNECT PLUS DESIGN AND DEPLOY

COURSE OVERVIEW

MOTOTRBO™ Connect Plus Design and Deploy introduces the key components and architectures of a MOTOTRBO™ Connect Plus Digital Radio system. The goal of the training is to teach participants how to correctly design and deploy a Connect Plus system in the field.

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the MOTOTRBO™ Connect Plus system.
- Describe in detail MOTOTRBO™ Connect Plus theory of operation.
- Identify the available MOTOTRBO™ Connect Plus topologies.
- Configure a MOTOTRBO™ Connect Plus system using MOTOTRBO™ CPS to program both MOTOTRBO™ radios and MOTOTRBO™ repeaters.
- Configure a MOTOTRBO™ option board using MOTOTRBO™ Connect Plus Option Board CPS.
- Use the MOTOTRBO™ Connect Plus Network Management Application to configure, monitor, and make adjustments to MOTOTRBO™ Connect Plus sites and subscriber units.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- CEDMEL2000: MOTOTRBO™ System Introduction for Technicians

One or more of the following:
- AEL2600: MOTOTRBO™ IP Site Connect Design and Deploy
- CEDMEL2600: MOTOTRBO™ Capacity Plus Design and Deploy
- AEL2601: MOTOTRBO™ Linked Capacity Plus Design and Deploy

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
AEL3601

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **MOTOTRBO™**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the North America Training Services Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

MOTOTRBO™ CAPACITY MAX APPLICATIONS

COURSE OVERVIEW

This training is for those individuals who wish to take their knowledge to the next level of understanding as it pertains to the MNIS Voice and Data Gateways of a MOTOTRBO™ Capacity Max system. The system design implications and foundational deployment of 3rd party Applications (AVTEC Scout, SmartPTT and TRBOnet) will be addressed, as well as how to enable Over-the-Air Programming and IMPRESS™ Battery Management in a Capacity Max system.

As a cost-saving alternative to traditional classroom, this course is delivered as a Virtual Instructor Led Training (VILT) divided into 5 sessions; each session is 2.5 hours in length. Special software is not required. You only need a standard web browser and telephone or VoIP capability to participate.

Your instructor will contact you prior to the beginning of the session to introduce himself, provide you with the class materials and instructions.

AUDIENCE

System Managers and Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Explain the implications and deploy the following in basic Capacity Max system:
  - VRC Gateway
  - Data Gateway
  - SmartPTT
  - TRBOnet
  - AVTEC Scout
  - Over-the-Air Programming
  - IMPRESTM Battery Management

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- CEDMEL2000 - Introduction to MOTOTRBO Systems for Technicians or equivalent experience
- PCT1047 - MOTOTRBO Capacity Max Technical Overview (Online Training) or PCT1050 - MOTOTRBO Capacity Max Technical Overview (Instructor-Led Training)
- PCT1046 - MOTOTRBO Capacity Max Theory of Operation (Online Training) or or PCT1051 - MOTOTRBO Capacity Max Theory of Operation (Instructor-Led Training)
- PCT1031 - MOTOTRBO Capacity Max System Advisor
- PCT1032 - Radio Management 2.0 Configuration Mode (Online Training
- Understanding IP Network Addressing
- Knowledge of RF Propagation Modelling Tools

VIRTUAL CLASSROOM
LENGTH: **2 DAYS**
LMS COURSE CODE:
PCT3006

TRBONET PLUS ESSENTIALS AND DEPLOYMENT

COURSE OVERVIEW

The TRBOnet Plus Workshop is a highly interactive course, providing delegates with the information needed to install and configure a TRBOnet Plus system. Information covered includes Mototrbo control rooms, TRBOnet specifications, as well as installation and configuration procedures.

AUDIENCE

System operations staff and field engineers involved in the installation and configuration of TRBOnet systems.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe TRBOnet PLUS functionalities
- Describe TRBOnet PLUS solution architecture
- List the system requirements for deploying a TRBOnet PLUS solution
- Describe the system design for IP Site Connect, Capacity Plus, Linked Capacity Plus
- Describe the system design for Connect Plus
- Define the set-up, installation and configuration process of the TRBOnet PLUS Radio Server
- Define the set-up, installation and configuration process of TRBOnet PLUS Dispatcher console functionalities
- Configure MOTOTRBO radios and repeaters for TRBOnet PLUS
- Configure MOTOTRBO Network Interface Service and MOTOTRBO DDMS Administrative Client

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DIMETRA IP D8.2 System Overview course (TSYS01R82)

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
PCT2006

CLICK HERE TO VIEW THE SCHEDULE

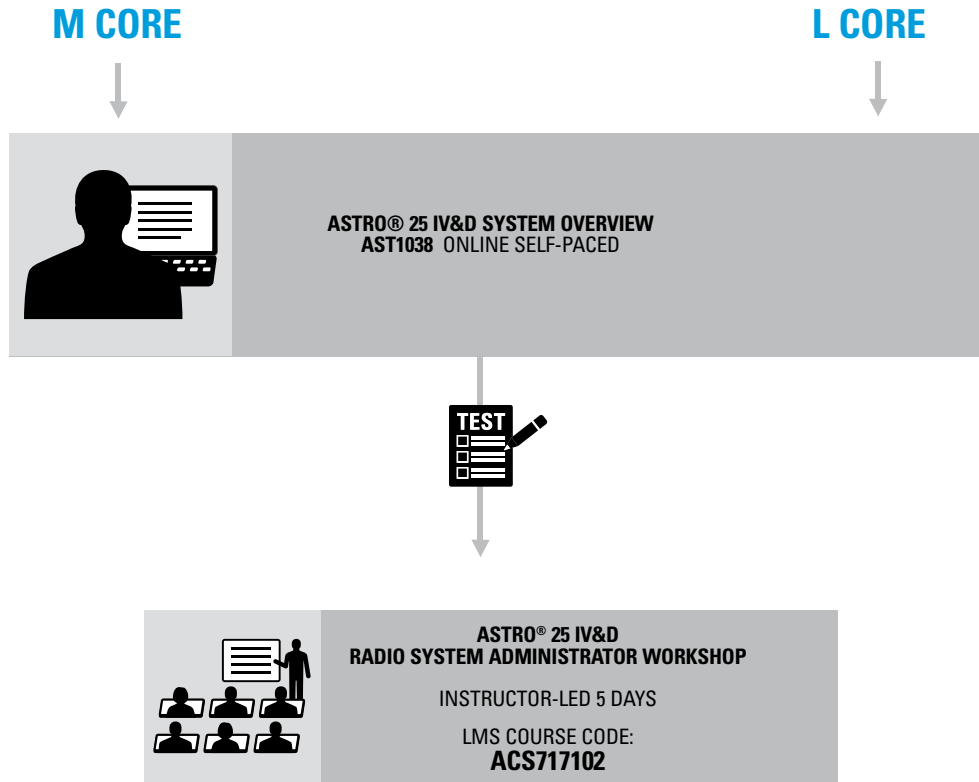# ASTRO® 25 SYSTEMS PORTFOLIO

ASTRO® 25 IV&D SYSTEM COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.motorolasolutions.com

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR

M CORE　　　　　　　　　　　　　　　　　　　**L CORE**

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST

ASTRO® 25 IV&D
RADIO SYSTEM ADMINISTRATOR WORKSHOP

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
ACS717102

RECOMMENDED CURRICULUM IS COMPLETE
PARTICIPANT SHOULD BE ABLE TO CARRY OUT ADMINISTRATIVE TASKS IN THE ASTRO® 25 IV&D SYSTEM SUCH AS: PROVISIONING SUBSCRIBERS AND TALK GROUPS, GENERATING HISTORICAL REPORTS, CONTROLLING DEPLOYED SUBSCRIBERS AND MANAGING NETWORK ELEMENT CONFIGURATIONS.
PARTICIPANT UNDERSTANDS FACTORS OF SYSTEM CONFIGURATION THAT IMPACT ASTRO® 25 SYSTEM MANAGEMENT.
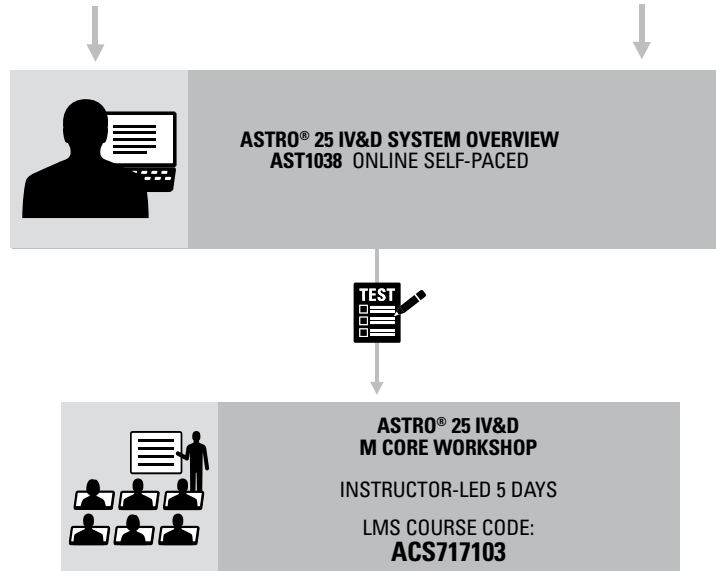
RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D M/L CORE TECHNICIAN

M CORE

L CORE

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST

**ASTRO® 25 IV&D
M CORE WORKSHOP**

INSTRUCTOR-LED 5 DAYS

LMS COURSE CODE:
ACS717103

ASTRO® 25 IV&D K CORE TECHNICIAN

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST

**ASTRO® 25 IV&D
CONVENTIONAL K CORE WITH
CONFIGURATION MANAGER**

INSTRUCTOR-LED 3 DAYS

LMS COURSE CODE:
ACS717410
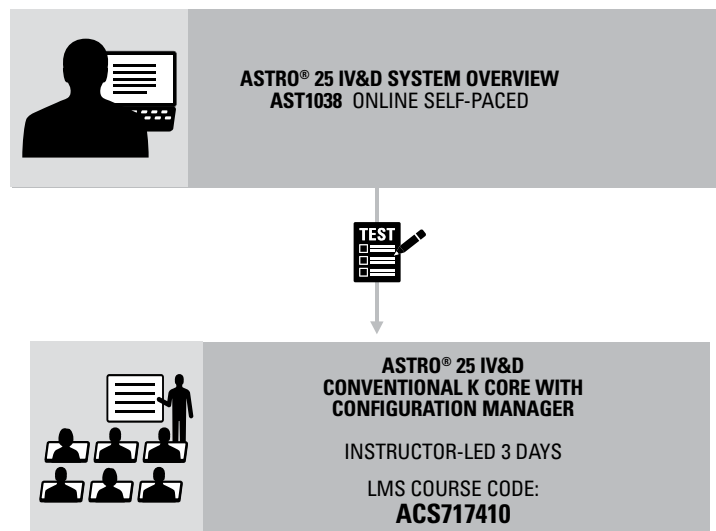
RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD UNDERSTAND ASTRO® 25 M CORE COMPONENTS, VIRTUAL SERVERS AND SERVICE STRATEGY. PARTICIPANT CAN INTERPRET SYSTEM ALARMS, PROPOSE SOLUTIONS FOR SYSTEM FAILURES, AND AS WELL AS RESTORING EQUIPMENT TO PROPER FUNCTIONALITY.

OPTIONAL TRAINING PATH AVAILABLE.

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D REPEATER SITE TECHNICIAN (GTR)

M CORE

L CORE

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST
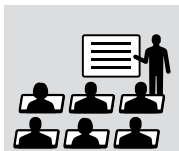
ASTRO® 25 IV&D
GTR 8000 REPEATER SITE WORKSHOP

INSTRUCTOR-LED 3 DAYS

LMS COURSE CODE:
ACS717208

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT CAN MAINTAIN AN ASTRO® 25 REPEATER SITE INCLUDING: GTR8000 BASE STATION, GCP8000 SITE CONTROLLER AND OTHER SITE EQUIPMENT.
*PARTICIPANT PERFORMS ALIGNMENTS TROUBLESHOOTING AND FIELD REPLACEMENT OF SITE DEVICES DURING COURSE.

OPTIONAL TRAINING PATH AVAILABLE.

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D IP SIMULCAST SITE TECHNICIAN

M CORE

L CORE

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST

ASTRO® 25 IV&D
IP BASED DIGITAL SIMULCAST WORKSHOP

INSTRUCTOR-LED 3 DAYS

LMS COURSE CODE:
ACS717217

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD BE ABLE TO MAINTAIN AN ASTRO® 25 REPEATER SITE INCLUDING THE GTR8000 BASE STATION, GCP8000 SITE CONTROLLER, SITE COMPARATOR AND OTHER SITE EQUIPMENT.

OPTIONAL TRAINING PATH AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 70 FOR ADDITIONAL DETAILS.

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D CONVENTIONAL RF SITE TECHNICIAN

M CORE

K CORE

ASTRO® 25 IV&D SYSTEM OVERVIEW
AST1038 ONLINE SELF-PACED

TEST

ASTRO® 25 IV&D
CONVENTIONAL RF SITE WORKSHOP

INSTRUCTOR-LED 3 DAYS

LMS COURSE CODE:
ACS717440

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD BE ABLE TO MAINTAIN AN ASTRO® 25 REPEATER SITE INCLUDING THE GTR8000 BASE STATIONS, GCP8000 SITE CONTROLLER, SITE COMPARATOR AND OTHER SITE EQUIPMENT.

OPTIONAL TRAINING PATH AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 70 FOR ADDITIONAL DETAILS.

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® IV&D OPTIONAL TRAINING CURRICULUM

Motorola Solutions offers optional training for those participants who have completed their ASTRO® 25 curriculum and want to learn more about their system's infrastructure and/or features. **Select the training course below applicable to your system.**

SECURITY PATCH MANAGEMENT	SYSTEMS FLEETMAPPING	RADIO AUTHENTICATION	INFORMATION ASSURANCE WORKSHOP
ASTRO® 25 IV&D SECURITY PATCH MANAGEMENT INSTRUCTOR-LED **AST2001**	**ASTRO® 25 IV&D ISYSTEMS FLEETMAPPING** INSTRUCTOR-LED **RDS1017**	**ASTRO® 25 IV&D RADIO AUTHENTICATION** INSTRUCTOR-LED **AST2038**	**ASTRO® 25 IV&D INFORMATION ASSURANCE WORKSHOP** INSTRUCTOR-LED **ACS716600**

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D SYSTEM OVERVIEW

COURSE OVERVIEW

The ASTRO® 25 IV&D System Overview course will provide participants with knowledge and understanding of the ASTRO® 25 IV&D system. This course will address M, L and K Core systems. System architecture, components and features will be explained. In addition, RF and console sites and their architecture, features and components will be discussed. Finally, call processing for voice and mobile data applications will be covered, and an introduction to applications available in the ASTRO® 25 system will be provided.

AUDIENCE

Core Technicians, Site Technicians, Console Technicians, Core Managers.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Understand the general architecture of an ASTRO® 25 IV&D Radio System
- Understand key features of available in the ASTRO® 25 IV&D Radio System
- Understand the components of the ASTRO® 25 Zone Core
- Understand site components in the ASTRO® 25 system
- Understand the features,capabilities and components of the MCC7000 series dispatch consoles
- Understand concepts of Mobility and Call Processing in the ASTRO25
- Understand the applications for managing the ASTRO® 25 system

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
AST1038

NEW FEATURES INTRODUCTION FOR ASTRO® 25 IV&D SYSTEMS

COURSE OVERVIEW

This course describes the new features introduced in the ASTRO® 25 7.17 system release. These features are broadly classified into migration related features, efficiency and safety related features, resilience and reliability related features, network management and design related features, system capacity related features and inter-system communication related features. Optional features are introduced along with standard enhancements in this release.

AUDIENCE

System Administrators, System Technicians, Field Technicians, Application Users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the standard enhancements in the ASTRO® 25 7.17 system release
- Describe optional enhancements in the ASTRO® 25 7.17 system release
- Describe the key optional features available in the ASTRO® 25 7.17 system release

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- ASTRO® 25 IV&D Curriculum (Release 7.9 or later) or equivalent knowledge for supported job role

VIRTUAL CLASSROOM
LENGTH: **2 HOURS**
LMS COURSE CODE:
AST1029

ASTRO® 25 IV&D M CORE WORKSHOP

COURSE OVERVIEW

The ASTRO® 25 IV&D M Core course teaches troubleshooting skills and best practices for the Trunked Large Systems. The course also focuses on gathering and analyzing system information to implement appropriate action(s) that return a system to full operational status.

AUDIENCE

M Core Master Site Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the ASTRO® 25 IV&D System architecture
- Identify the functional and radio subsystems that comprise the ASTRO® 25 IV&D System
- Explain and discuss call flow and data flow through ASTRO® 25 IV&D M Core devices and their subsystems
- Perform recommended routine maintenance procedures for ASTRO® 25 IV&D M Core
- Utilise the troubleshooting tools to diagnose a fault and restore the ASTRO® 25 IV&D M Core to the level of the Motorola Solutions-supported service strategy

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO® 25 – Technician (ACT100E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Systems Applied Networking (NWT003)

Required:
- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
ACS717103

CLICK HERE TO VIEW THE SCHEDULE

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D CONVENTIONAL K CORE WITH CONFIGURATION MANAGER

COURSE OVERVIEW

The ASTRO® 25 IV&D Conventional with K Core and Configuration Manager course teaches advanced troubleshooting skills and best practices for the ASTRO® 25 IV&D Conventional K Core. It also focuses on administrator functions and how to use the ASTRO® 25 IV&D Configuration Manager applications. A technical **introduction** to the MCC 7000 series consoles as used within the ASTRO® 25 IV&D Conventional K Core, including some administrator functions, is also provided. Learning activities focus on gathering and analyzing system information to implement the appropriate actions that return a system to full operational status.

AUDIENCE

Master Site Technicians, System Administrators, Technical System Administrators, System Technicians and other Application Users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Understand key physical and functional characteristics of K Core conventional system.
- Perform tasks necessary to install K Core conventional system components.
- Perform configuration steps for K Core conventional system components.
- Understand available maintenance tools and indicators in K Core conventional system.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap – System Administrators (ACT101E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Applied Networking (NWT003)
- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS717410

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR WORKSHOP

COURSE OVERVIEW

This workshop covers administrator functions for an ASTRO® 25 IV&D System. Learning activities in this course focus on how to use the different ASTRO® 25 IV&D System Management applications. Participants will be provided with an opportunity to discuss how to structure their organisation and personnel for optimal ASTRO® 25 IV&D system use.

AUDIENCE

System Administrators, Technical System Administrators, System Technicians, and other Application Users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the relationship between radio programming, console administration and system management, and the impact of this relationship on system planning
- List the network management tools applicable at each phase of the system life cycle
- Use the report and real-time data to monitor performance and make adjustments necessary to maintain acceptable system performance levels
- Identify the advantages and disadvantages of options available for the configuration of system infrastructure and user parameters

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap – System Administrators (ACT101E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Applied Networking (NWT003)
- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
ACS717102

ASTRO® 25 SYSTEMS FLEETMAPPING

COURSE OVERVIEW

This workshop addresses topics necessary for the effective planning and mapping of an ASTRO® 25 IV&D radio system. During this course, the participants will learn about ASTRO® 25 features, capabilities, and restrictions in order to effectively plan and prepare for a new or upgraded ASTRO® 25 system.

AUDIENCE

Pre-sale customers, new system managers, system planning personnel

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Discuss what a fleetmap is and why one is needed.
- Discuss the methodologies used to configure radio users and groups with the goal of optimising the system resources.
- Describe the content to assist with fleetmapping decisions.
- Discuss frequency band plan organisation and management.
- Describe basic planning requirements and complete a simple Fleetmap information template.
- Complete worksheets required to create a Fleetmap based on sample operational requirement information.

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
RDS1017

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 SECURITY PATCH MANAGEMENT

COURSE OVERVIEW

Provide Motorola Solutions ASTRO® 25 Land Mobile Radio (LMR) system administrators the information to access and patch their radio system infrastructure, update antivirus definitions, review log files and understand account management.

AUDIENCE

M Core Master Site Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Successfully access servers in the M-Core
- Successfully patch their radio system infrastructure
- Update Anti-virus (A/V) Definitions for their radiosystem infrastructure
- Perform basic review of UNIX logs
- Create user and group accounts
- Assist with basic tasks in Account Management on
- the LMR system

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- ASTRO® 25 IV&D M Core Workshop (ACS717103)

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
AST2001

ASTRO® 25 RADIO AUTHENTICATION

COURSE OVERVIEW

This course describes the Radio Authentication feature and defines the HW/SW components in the Radio Authentication system. In addition the course describes the Radio Authentication process, discusses the various Keys uses in Radio Authentication. The students will understand how to provision and distribute relevant Keys using the AuC Client GUI to access the AuC Server. Students will understand how to enable Radio Authentication in the System via the AuC Client and how to configure the KVL 4000 for Radio Authentication and manage subscribers from the AuC Client.

AUDIENCE

Customer Administrators or Technicians.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe Radio Authentication features and HW/SW components
- Describe the Radio Authentication process. Discuss the Keys used in Radio Authentication
- Provision and Distribute relevant Keys. Describe the AuC Client GUI
- Enable Radio Authentication in the System. Configure the KVL 4000 for Radio Authentication
- Manage Subscribers from the AuC Client. Discuss Radio Authentication functionality in a DSR system

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- AAE1400 - Radio Authentication e-learning course.
- Radio System Administration or equivalent knowledge of the Provisioning Manager, ZoneWatch, Historical Reports, ATIA Log Viewer, Unified Event Manager (UEM), Unified Network Configurator (UNC).

Required:

Access to customer ASTRO25 Radio System, AuC Server/Client is required. Customer to provide working Motorola Solutions' portable radio(s) capable of placing calls on the System, access to working AuC client/server along with admin login credentials, access to a working KVL4000 key loader that can upload keys to the AuC server.

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
AST2038

ASTRO® 25 INFORMATION ASSURANCE WORKSHOP

COURSE OVERVIEW

Information Assurance (IA) refers to securing radio network access, protecting the privacy of network traffic using encryption, and assuring the integrity of data sent through the radio network or stored in the radio network. IA procedures and protocols offer FIPS-compliant techniques designed to harden the network. In this lab-based class, IA features are applied to network transport equipment by configuring HP switches, Motorola Solutions network routers, and firewalls in the classroom. Site level and zone core IA features are illustrated on the customer system or, by remotely accessing the Motorola Solutions Solutions OneLE ASTRO ® 25 system.

AUDIENCE

System Technnician and Managers.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Identify and describe the various Information Assurance (IA) features available in the
- ASTRO® 25 IV&D network.
- Identify the system locations and scope of protection offered by IA features in the network.
- Harden ASTRO ® 25 networks using Information Assurance (IA) features.
- Configure and restore IA features on HP switches and Motorola Solutions network routers.
- Configure site level IA features using the CSS or UNC.
- Manage zone core level IA features.
- Manage and check the configuration of firewalls in the ASTRO ® 25 network.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- NST762 Networking Essentials in Communications Equipment
- NWT003 ASTRO ® 25 Applied Networking
- ACS71X103 ASTRO ® 25 M-Core Workshop

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
ACS716600

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D SECURE COMMUNICATIONS WORKSHOP

COURSE OVERVIEW

This workshop describes planning, installation, configuration, operations, and troubleshooting of Secure Communications within the ASTRO® 25 IV&D System.

AUDIENCE

System Technicians, System Administrators, Technical System Managers

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Plan, organise, and implement Secure Communications in an ASTRO® 25 IV&D system
- Install and configure a Key Management Facility (KMF) system and related components
- Demonstrate centralized key management using Over-the-Air-Rekeying (OTAR)
- Perform System Administrator functions using the KMF server and KMF client
- Troubleshoot installation and configuration problems for the KMF server, KMF client, and KMF database
- Implement end-to-end encryption using the MCC 7500 console subsystem

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Bridging the Knowledge Gap for ASTRO® 25 (ACT100E or ACT101E)
- Networking Essentials in Communication Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
ACS717207

ASTRO® 25 IV&D IP BASED DIGITAL SIMULCAST WORKSHOP

COURSE OVERVIEW

The ASTRO® 25 IV&D IP Based Digital Simulcast workshop provides an understanding of the components that comprise the ASTRO® 25 IV&D IP Simulcast subsystem, and how they operate in conjunction with each other. The workshop also explains the tools and methods available for troubleshooting components within the IP Based Simulcast subsystem.

AUDIENCE

Simulcast Site Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recognize the flow of message and control data within an ASTRO® 25 IV&D IP Digital Simulcast subsystem
- Identify the major components and connections within an ASTRO® 25 IV&D IP Digital Simulcast subsystem prime and remote sites
- Recognize how calls are processed within an ASTRO® 25 IV&D IP Digital Simulcast subsystem
- Perform maintenance and troubleshooting of select components in an ASTRO® 25 IV&D IP Digital Simulcast subsystem

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Bridging the Knowledge Gap for ASTRO® 25 – Technician (ACT100E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Systems Applied Networking (NWT003)

Required:

- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS717217

ASTRO® 25 IV&D GTR 8000 REPEATER SITE WORKSHOP

COURSE OVERVIEW

This workshop describes the components in the ASTRO® 25 IV&D System Repeater Site with GTR 8000 expandable site subsystem. This course also presents how the GTR 8000 expandable site subsystem operates and explains the tools and methods available for troubleshooting components within the subsystem.

AUDIENCE

GTR 8000 Site Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the ASTRO® 25 IV&D Repeater Site with GTR 8000 Expandable Site Subsystem configurations and components
- Identify the GCP 8000 Site Controller functions and configuration requirements
- Describe the connections and interfaces to the GCP 8000
- Diagnose and troubleshoot the GCP 8000
- Describe the functionality of the GTR 8000 Expandable Site Subsystem
- Configure and troubleshoot the ASTRO® 25 Repeater Site with GTR 8000 Expandable Site Subsystem
- Configure and troubleshoot the Network Transport subsystem

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- Bridging the Knowledge Gap for ASTRO® 25 – Technician (ACT100E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Systems Applied Networking (NWT003)

Required:

- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS717208

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

ASTRO® 25 IV&D CONVENTIONAL RF SITE WORKSHOP

COURSE OVERVIEW

The ASTRO® 25 IV&D Conventional RF Site workshop describes the components in the different ASTRO® 25 IV&D Conventional RF Sites topologies. This course also presents how the different ASTRO® 25 IV&D Conventional RF Sites topologies operate and explains the tools and methods available for troubleshooting components within the different ASTRO® 25 IV&D Conventional RF Sites topologies.

AUDIENCE
Site Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Understand key physical and functional characteristics of conventional site.
- Perform tasks necessary to install conventional site components.
- Perform configuration steps for conventional site components.
- Understand available maintenance tools and indicators in conventional site.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent knowledge:

- Bridging the Knowledge Gap – System Administrators (ACT101)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Applied Networking (NWT003)
- ASTRO® 25 IV&D System Overview (AST1038)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS717440

INTELLIGENT MIDDLEWARE 5.2 OPERATION AND ADMINISTRATION

COURSE OVERVIEW

The purpose of this course is to provide the steps to operate and maintain a customer's IMW system within their Motorola Solutions system (ASTRO, DIMETRA, LTE).

AUDIENCE

Partners/Resellers and customers who would be responsible for the operation and maintenance of a customer's IMW system within their Motorola Solutions systems (ASTRO, DIMETRA, LTE).
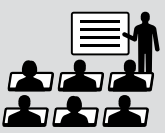
COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe IMW features.
- Perform installation of IMW.
- Configure an IMW system.
- Identify the IMW tools to administer the system.
- Perform routine administration.
- Perform troubleshooting.
- Understand system-specific considerations.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
RDS2025

CLICK HERE TO VIEW THE SCHEDULE

HELPING PEOPLE BE THEIR BEST IN THE MOMENTS THAT MATTER

PUBLIC SAFETY LTE DELIVERS
A HIGH DEGREE OF THE 5 C's

COVERAGE WITHOUT COMPROMISE
Public Safety LTE networks handle peak usage and prioritise system traffic to the end of coverage. Extend network coverage during disaster recovery situations and optimise coverage at the edge with LTE deployable trailers. Because first responders can instantly access video, photos, maps and more, they're better prepared to arrive at a dangerous crime scene or search patient medial records from a moving ambulance.

CAPACITY FOR IT ALL
Capacity isn't only critical for emergencies, it's essential for day-to-day operations. When thousands of people converge at sports venues, concerts, festivals and rallies, mobile capacity must be sufficient and robust to keep everyone safe.

CAPABILITES TO IMPROVE SITUATIONAL AWARENESS
When public safety personnel have a unified picture of what's unfolding, they are better equipped to respond. High-speed data, location information, photos and streaming video can significantly improve collaboration and outcomes.
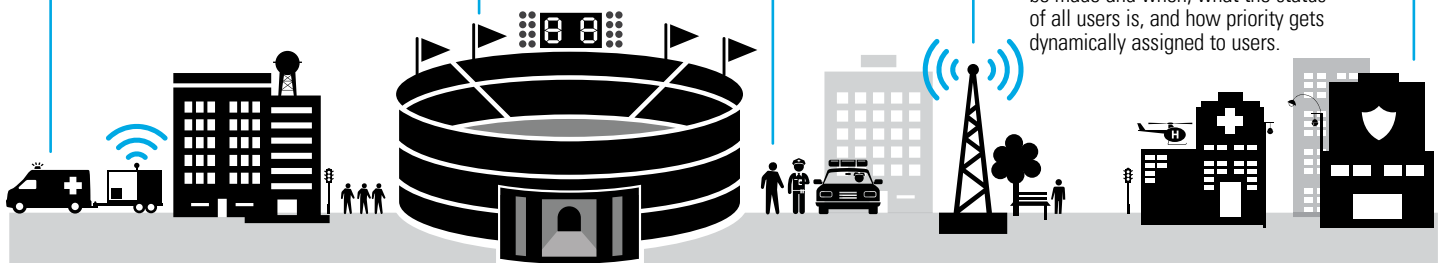
COST SAVING ON A LARGE SCALE
An optimised Public Safety LTE network that saves money via economies of scale on devices and infrastructure partnership where needed.

CONTROL OF YOUR COMMUNICATIONS
An optimised Public Safety LTE network gives you greater control over your system, software and devices. You decide who accesses the system, what changes need to be made and when, what the status of all users is, and how priority gets dynamically assigned to users.

PUBLIC SAFETY LTE COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to
learning.motorolasolutions.com

RADIO SOLUTIONS **PUBLIC SAFETY LTE**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

PUBLIC SAFETY LTE ARCHITECTURE AND SIGNALING

COURSE OVERVIEW

This lab-based class provides students a practical understanding of 3GPP LTE/EPC signaling as used in a public safety LTE network.

Students use an Aricent EPC core system, Ericsson eNodeB, and Motorola Solutions subscriber units to: manage LTE/EPC network elements and interfaces, determine subscriber and network element status, capture and analyze LTE signaling, and analyze endto-end service signaling and quality of service.

AUDIENCE

Customers

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe LTE network elements and function
- Describe LTE/EPC interfaces
- Analyze LTE/EPC signaling flows
- Evaluate network element status based on NE interface and signaling state
- Trace UE state based on signaling
- Validate and troubleshoot end-to-end service signaling
- Describe LTE Quality of Service (QoS) operation
- Describe LTE to ASTRO® 25 inter-working options

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Public Safety LTE System Overview (AAE1603)
- Networking Essentials in Motorola Solutions Communicatons Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
LTE2005

PUBLIC SAFETY LTE SYSTEM ADMINISTRATION

COURSE OVERVIEW

PS LTE System Administration training covers the key functionality and tasks required to administer and manage a Public Safety LTE system. Participants will understand the functionality of the management applications, requirements for subscriber provisioning, requirements for proper quality of service, fault management and other network administration needs. Participants will perform tasks demonstrating proficiency in using the applications resident on the OSP platform.

AUDIENCE

Customer System Manager, Customer Technical Staff, MSI employee

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Understand the function of the Operations Support Platform (OSP) and how it is used to manage the PS LTE system.
- Access the Unified Provisioning Manager (UPM) and provision end users and UICCs on the PS LTE system.
- View and manage faults using the Unified Event Manager (UEM).
- Access the Log Management application to view and manage syslog messages.
- Monitor the performance of the system using PM reports.
- View eNodeB fault and performance status within a graphical map using the Network Monitor application.
- Manage and control access to the OSP platform and the suite of management applications residing on the OSP.
- Access the OSP virtual machines and perform administrative actions.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Basic Networking (RDS0003)
- PS LTE System Overview (AAE1603)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
LTE2006

PUBLIC SAFETY LTE APPLIED NETWORKING

COURSE OVERVIEW

The Public Safety LTE Applied Networking course covers the operation and maintenance of Motorola Solutions supplied network transport equipment used in a PS LTE network. Participants will learn the operation and replacement tasks required to maintain Layer 2 switches, Layer 3 switches, the NTP server, DNS server, firewalls, and other devices which provide backhaul transport and connectivity services in the network.

This lab-based course offers students practice with critical maintenance procedures on standalone equipment without impacting network operation.

AUDIENCE

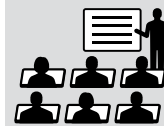Customer System Managers, Customer Network Transport Technical Staff

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Check and manage status of LTE network transport devices
- Upgrade and downgrade device firmware or operating system
- Backup and restore device configuration
- Replace device hardware
- Validate and troubleshoot device operation

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Public Safety LTE System Overview (AAE1603)
- Networking Essentials in Motorola Solutions Communicatons Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
LTE2007

CLICK HERE TO VIEW THE **SCHEDULE**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

PUBLIC SAFETY LTE LEX L10i MISSION CRITICAL HANDHELD OVERVIEW

COURSE OVERVIEW

The Public Safety LTE LEX L10i Mission Critical Handheld Overview instructor-led course presents an overview of the LEX L10i Mission Critical Handheld, including hands on practice of managing and validating devices using available methods. Maintaining and troubleshooting the LEX L10i is also covered.

AUDIENCE

Field Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe LEX L10i features.
- Perform user operation procedures on the LEX L10i.
- Perform management procedures on the LEX L10i.
- Perform validation procedures on the LEX L10i.
- Perform maintenance procedures on the LEX L10i.
- Perform troubleshooting procedures on the LEX L10i.

REQUISITE KNOWLEDGE

- None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
LTE1024

PUBLIC SAFETY LTE VEHICULAR SUBSCRIBER MODEM WORKSHOP

COURSE OVERVIEW

The Public Safety LTE Vehicular Subscriber Modem User programme is an instructor-led training course describing the LTE Vehicle Subscriber Modem including a hands-onn practice of the modem operation. The course is designed to provide an overview of the LTE Vehicle Subscriber Modem, how it is installed and some of the technical issues that may arise after installation.

AUDIENCE

First Responders, End Users, Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Recognize and describe the Vehicle Subscriber Modem (VSM).
- Describe the components used with the VSM.
- Understand the installation requirements.
- Understand where the VSM fits within the Public Safety LTE system.
- Recognize the VSM Status Utility and understand its function.
- Troubleshoot general connection problems.
- Understand the meaning of the different LED indicators.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience:

- Public Safety LTE System Overview (AAE1603)

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
LTE1023

WAVE 7000 ADMINISTRATION AND MAINTENANCE WORKSHOP

COURSE OVERVIEW

The course covers the following:
- WAVE 7000 system overview and a list of features
- WAVE 7000 server administration, maintenance and troubleshooting content
- PSX PTT application overview, available call types
The intent of the course is to present the WAVE 7000 system in the context of the entire solution including IMW and LTE elements.
However, a detailed discussion of IMW and PS LTE components and applications is outside of the scope of this course.

AUDIENCE

System Administrators, Field Engineers, Support Engineers

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Provide information regarding the WAVE 7000 system, its function and capabilities.
- Perform the call types offered within the WAVE 7000 solution.
- Recognize WAVE 7000 administration tools and their functions.
- Define and describe the features of WAVE 7000 system.
- Execute back up and restore operations for WAVE 7000 system.
- Understand and explain process of geo-redundancy, as well as its administration, maintenance, provisioning and synchronization.
- Define and describe Secure Signaling and Service Authentication of WAVE 7000.
- Fix the presented issues of WAVE 7000 System.

REQUISITE KNOWLEDGE

- None

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
LTE2043

CLICK HERE TO VIEW THE **SCHEDULE**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

PUBLIC SAFETY LTE SYSTEM OVERVIEW

COURSE OVERVIEW

The Public Safety LTE System Overview self-paced course presents a high-level description of the Public Safety LTE system and an introduction into the network elements that comprise the system.

AUDIENCE

System Managers, System Technicians

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe LTE (Long-Term Evolution) technologies
- Describe the networks and their connections in a Public Safety LTE system
- Describe the functionality of the elements in aM Public Safety LTE system
- Describe how Prioritization works
- Describe bearers and data paths
- Describe the User Equipment (UE)

REQUISITE KNOWLEDGE

- None

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
AAE1603

CLICK HERE TO VIEW THE
SCHEDULE

SOFTWARE & APPLICATIONS

RADIO SOLUTIONS **SOFTWARE & APPLICATIONS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

WAVE CERTIFIED INTEGRATION ENGINEER

COURSE OVERVIEW

The WAVE Certified Integration Engineer course provides instruction in designing, integrating, and troubleshooting WAVE systems. It also provides the groundwork for a basic understanding of how WAVE delivers a Radio-over-IP solution. The training scope covers WAVE integration to MOTOTRBO™, ASTRO, and DIMETRA systems.

AUDIENCE

Sales/Systems Engineers who will design and implement WAVE solutions, presale/post sale engineers, Motorola Solutions STs and FTs, partners, and customers.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Understand and identify WAVE components.
- Install and configure the WAVE Management Server, Media Server, Proxy Server, Desktop Communicator, Advanced Desktop Communicator, Web and Mobile Communicators.
- Identify radio systems compatible with WAVE and list integration steps.
- Maintain and support a WAVE domain.

REQUISITE KNOWLEDGE

General knowledge of:

- IP Networking
- IP Telephony
- Server-class Operating Systems
- Mobile Device Applications
- LMR Radio Systems
- Motobridge
- MOTOTRBO™
- VMware vSphere – server virtualization platform
- Windows Active Directory
- IP Security

INSTRUCTOR-LED
LENGTH: **5 DAYS**
LMS COURSE CODE:
AST3001

WAVE 7000 ADMINISTRATION AND MAINTENANCE WORKSHOP

COURSE OVERVIEW

The course covers the following:
- WAVE 7000 system overview and a list of features
- WAVE 7000 server administration, maintenance and troubleshooting content
 - PSX PTT application overview, available call types
The intent of the course is to present the WAVE 7000 system in the context of the entire solution including IMW and LTE elements.
However, a detailed discussion of IMW and PS LTE components and applications is outside of the scope of this course.

AUDIENCE

System Administrators, Field Engineers, Support Engineers

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Provide information regarding the WAVE 7000 system, its function and capabilities.
- Perform the call types offered within the WAVE 7000 solution.
- Recognize WAVE 7000 administration tools and their functions.
- Define and describe the features of WAVE 7000 system.
- Execute back up and restore operations for WAVE 7000 system.
- Understand and explain process of geo-redundancy, as well as its administration, maintenance, provisioning and synchronization.
- Define and describe Secure Signaling and Service Authentication of WAVE 7000.
- Fix the presented issues of WAVE 7000 System.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
LTE2043

MOTOMAPPING OPERATION AND ADMINISTRATION

COURSE OVERVIEW

The purpose of this course is to provide operational knowledge of the Intelligent Middleware MotoMapping solution. It captures essential navigational and procedural activities that are used for administering, managing, and utilizing MotoMapping.

AUDIENCE

Personnel responsible for administrative and operational management of Intelligent Middleware applications.

COURSE OBJECTIVES

The goal of this course is to present a spectrum of actions that can be performed in MotoMapping, including preparatory tasks.

REQUISITE KNOWLEDGE
None

INSTRUCTOR-LED
LENGTH: **1 DAY**
LMS COURSE CODE:
AVL02

RADIO SOLUTIONS **SOFTWARE & APPLICATIONS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

UNS OPERATIONS AND ADMINISTRATION R4.0

COURSE OVERVIEW

The purpose of this course is to provide the steps to operate and maintain a customer's UNS within their Motorola system (DIMETRA IP). The course should provide system so students can have hands-on practice going through the operation, maintenance, and troubleshooting steps.

AUDIENCE

Partners/Resellers and customers who would be responsible for the operation and maintenance of a customer's UNS within their Motorola system (DIMETRA IP)

COURSE OBJECTIVES

After completing this course, the student will be able to:
- PDescribe the Features of UNS
- Configure a UNS system
- Identify the UNS tools to administer the system
- Perform routine administration
- Perform troubleshooting

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
DMT2008

INTELLIGENT MIDDLEWARE 5.2 OPERATION AND ADMINISTRATION

COURSE OVERVIEW

The purpose of this course is to provide the steps to operate and maintain a customer's IMW 5.2 system within their Motorola Solutions system (ASTRO, DIMETRA, LTE).

AUDIENCE

Partners/Resellers and customers who would be responsible for the operation and maintenance of a customer's IMW system within their Motorola Solutions systems (ASTRO, DIMETRA, LTE).
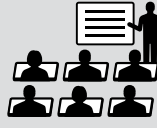
COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe IMW features.
- Perform installation of IMW.
- Configure an IMW system.
- Identify the IMW tools to administer the system.
- Perform routine administration.
- Perform troubleshooting.
- Understand system-specific considerations.

REQUISITE KNOWLEDGE

None

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
RDS2025

COMMANDCENTRAL VAULT END USER

COURSE OVERVIEW

The CommandCentral Vault End User course starts out by providing a high level overview of CommandCentral Vault. It then demonstrates all of the tasks and end user may be required to do. It goes through grouping and filtering of videos, it walks through the tasks of adding annotations, creating video clips, adding appropriate tags, and how to handle audio and picture files.

AUDIENCE

End users

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the CommandCentral Vault GUI and the Vault functions
- Navigate through, Group and Filter Videos
- Describe the Video overview screen
- Create clips, add annotations, and add appropriate tags to videos
- Describe how to handle Audio and picture files

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
PSA1044

FOR MORE INFORMATION, CONTACT YOUR MOTOROLA SOLUTIONS REPRESENTATIVE

CLICK HERE TO VIEW THE **SCHEDULE**

RADIO SOLUTIONS **SOFTWARE & APPLICATIONS**
For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

COMMANDCENTRAL VAULT SYSTEM ADMINISTRATION

COURSE OVERVIEW

The CommandCentral Vault System Administration course provides an overview of CommandCentral Vault's System Administrator tasks. It covers: Device management tasks, including deleting devices, and adding new devices to vault. Adding new devices is referred to as the "Out of Box Experience". It then explains how to assign devices to officers, and finally goes through the steps to set up tags. Tags are used to identify or classify videos in to categories that are important to an agency. How these tags can be used for searching, grouping or if they can be available on the Si device are determined by setting the system administrator makes. This course also explains how to set up the default global retention durations, how to set the Recovery period before a video is deleted, and how to set unique retention times for special video types.

AUDIENCE

End users

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Add, delete and assign Si Devices
- Set video retention and recovery durations
- Create and Manage Tags
- Fix the presented issues of WAVE 7000 System.

REQUISITE KNOWLEDGE

None

ONLINE, SELF-PACED
LENGTH: **0.5 HOURS**
LMS COURSE CODE:
PSA1043

CLICK HERE TO VIEW THE
SCHEDULE

ADDITIONAL COURSES

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to
learning.motorolasolutions.com

RADIO SOLUTIONS **BASE STATIONS**

For information on prerequisites and to register for courses visit the LMS at:
LEARNING.MOTOROLASOLUTIONS.COM

For general information contact the Europe, Middle East and Africa Education Services Help Desk at:
+44 (0) 203 0277 499 or training.emea@motorolasolutions.com

INDUSTRIAL IOT/SCADA - ACE1000 TECHNICAL TRAINING AND PORTFOLIO ESSENTIALS

COURSE OVERVIEW

This course provides an overview of the features and functions of the ACE1000 product. Upon the completion of the course, the participants will be able to configure and operate the ACE1000 system - communications and operations knowledge. They will also gain the maintenance and troubleshooting skills for the ACE1000 and will be able to perform ACELogic programming. This comprehensive training devotes a lot of time to hands-on practice. This course also provides an overview of IIOT/SCADA portfolio essentials: the ACE3600 security platform, migration to secured system, and third parties protocols support: MODBUS and DNP3.

AUDIENCE

All staff who require an overview of the Industrial IOT/SCADA ACE system functionalities and features.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the ACE1000 product and its capabilities.
- Operate the Easy Configuration tool to perform configuration, installation, diagnostic, and monitor of the ACE1000 FEP-RTU system.
- Perform Control and Monitor on I/O modules
- Implement local processing using the ACELogic - Easy Programming tool.
- Describe the CODESYS IEC61131 programming tool and APIs.
- Configure the ACE1000 as Modbus Master to exchange data with the third party PLC.
- Configure the ACE1000 as Modbus Slave to interface with Control Center over the third party protocol.
- Configure the ACE1000 as DNP3 Master to exchange data with the third party PLC.
- Configure the ACE1000 as DNP3 Slave to interface with Control Center over the third party protocol.
- Configure the ACE system with LMR radios and modems (MotoTRBO, ASTRO 25, TETRA, Cellular).
- Configure ACE1000 unit as Intelligent Radio Modem (IRM) with MotoTRBO or ASTRO 25.
- Configure ACE1000 as part of Mixed System using the STS (optional).

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:

- For the mixed system training session, basic knowledge of ACE3600 level 1 preferable.
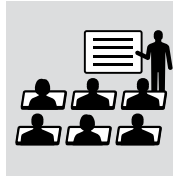
INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
RDS1048

INDUSTRIAL IOT/SCADA - ACE3600 TECHNICAL TRAINING

COURSE OVERVIEW

This course provides the participants with an overview of the features and functions of the ACE3600 product. Upon the completion of the course, the participants will gain the maintenance, configuration, and troubleshooting skills for the ACE3600 system and will be able to perform basic ladder diagram programming. The course also reviews the security capabilities.

AUDIENCE

All staff who require an overview of the Industrial IOT/SCADA ACE system functionalities and features.

COURSE OBJECTIVES

After completing this course, the student will be able to:

- Describe the ACE3600 product and its capabilities.
- Download the ACE3600 firmware, application, network and site configurations.
- Demonstrate the use of various features within the ACE3600 System Tool Suite (STS) software.
- Perform the hardware tests and calibration for I/O modules.
- Configure the site configuration of individual the ACE3600 RTUs.
- View the system network configurations.
- Explain the uses of process and database monitoring within the application programmer.
- Troubleshoot hardware down to the module level.
- Configure the ACE3600 as a Modbus Master / Slave (third party protocol).
- Overview the security features.

REQUIRED

- Laptop computer with Windows operating system (recommended).
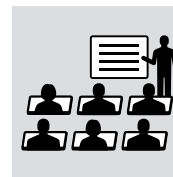
INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
RDS1050

CLICK HERE TO VIEW THE SCHEDULE

TRAINING SCHEDULE

DOWNLOAD THE EUROPE, MIDDLE EAST AND AFRICA TRAINING SCHEDULE

- **Easy to print:** Stand-alone file that is not part of this larger catalogue.
- **Easier to use:** Each course is hyperlinked to its sign-up page in the Learning Management System (LMS).
- **Updated frequently:** Download the latest version for the most current schedule.

To view the most current details for any of our courses, please register for an account (see Page 4) and log into the Motorola Solutions Learning Management System (LMS) at: **learning.motorolasolutions.com** or call us at +44 (0) 203 0277 499.

Click on the above link to access the schedule and pricing file or visit:
https://www.motorolasolutions.com/content/dam/msi/docs/services/learning/2018-emea-training-schedule.pdf

MOTOROLA SOLUTIONS EDUCATION SERVICES

EUROPE, MIDDLE EAST AND AFRICA

CONTACT US

SLOUGH, U.K.
Motorola Solutions, Ltd.
Charter Court, 50 Windsor Road
Slough, Berkshire, SL1 2EJ
United Kingdom

BERLIN, GERMANY
Motorola Solutions Germany GmbH,
Am Borsigturm 130,
Berlin, Germany 13507

CAIRO, EGYPT
Motorola SYSTEMS-Systel
Technical Training Centre,
SYSTEL Building (A5),
Smart Village, Alex. Desert Road.
Cairo, Egypt

Motorola Solutions, Ltd.
Charter Court, 50 Windsor Road
Slough, Berkshire, SL1 2EJ
United Kingdom

motorolasolutions.com/learning

MOTOROLA SOLUTIONS

SLOUGH BERLIN

CAIRO