2016
PRODUCT AND SYSTEM TECHNICAL TRAINING COURSE CATALOG

MOTOROLA SOLUTIONS LEARNING
NORTH AMERICA

PUBLISHED OCTOBER 2015

WELCOME

Choosing Motorola 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 Learning provides your organization a one-stop shop, end-to-end training service: from needs analysis and consultancy to course development, customization, delivery, and logistics.

Let Motorola Solutions Learning work with your team to ensure that your organization configures, operates and maintains your products and systems to effectively and efficiently meet your specific needs.

CATALOG TABLE OF CONTENTS

GENERAL INFORMATION 3

HOW TO REGISTER 4

TRAINING OPTIONS AND POLICIES 5

PRICING AND HELPFUL INFORMATION 6

OPERATOR TRAINING 7

TRAIN THE TRAINER / OPERATOR TRAINING 8

INTERACTIVE END USER TOOLKITS 8

COURSES 9

FOUNDATIONAL COURSES 10

ASTRO® 25 IV&D SYSTEMS 18

CONSOLES 42

SUBSCRIBERS 47

MOTOTRBO™ 53

PUBLIC SAFETY LTE 64

OTHER COURSES 68

NEW SOLUTIONS TRAINING 70

SCHEDULE AND PRICE SHEET 71

CONTACT US 72

GENERAL INFORMATION

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

For general information contact the North America Learning Help Desk at:
(800) 247-2346, option 4 or **training.na@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 User ID, you can go to the "Enroll in a Course" section for further instructions.

SET UP A NEW USER ACCOUNT AND PASSWORD

CREATE A MOTOROLA USER ID:

- Visit: **https://learning.motorolasolutions.com**
- Click the "Register" link at the bottom right of the Log In box
- Complete all the mandatory fields
- Enter your work email address, i.e., name@company.com.
  This will be your Motorola User ID
- Click the "Submit" button
- You will receive a confirmation of your submission
- When your LMS account setup has been completed, you will receive an email with your login information

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

THE LEARNING MANAGEMENT SYSTEM (LMS)

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

ENROLL IN A COURSE (ONCE YOU HAVE AN LMS ACCOUNT)

ENROLL IN A COURSE:

- Log in to the LMS: **https://learning.motorolasolutions.com**
- Enter your Motorola User ID/work email address
- Enter your Password (If you need to reset your password or forgot it, **click on the Forgot/Reset Password link**
- Click "Log In"
- Navigate to the Training Catalog link
- All Instructor-Led and Online courses are available here
- Select relevant course and click Enroll to begin

QUESTIONS ABOUT YOUR ACCOUNT OR A COURSE?

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

TRAINING OPTIONS, POLICIES AND REQUIREMENTS

TRAINING OPTIONS

RESIDENT, INSTRUCTOR-LED TRAINING

Resident training consists of regularly scheduled classes conducted at one of the Motorola Technical Training Centers. The centers 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 us at: **training.na@motorolasolutions.com**.

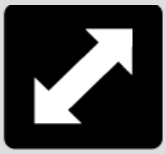
ONLINE SELF-PACED AND VIRTUAL CLASSROOM

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 Roadmaps from each product area of the catalog, 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

Motorola 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. For safety and security reasons, we cannot permit shorts, thong type sandals, or tank tops in the classroom.

LAPTOP REQUIREMENTS

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

TRAINING CONTENT AND STRATEGY DISCLAIMER

All of Motorola training classes are designed to support and align with the Motorola 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 products. The repair, replacement, or recovery of these products may vary from product to product. Motorola reserves the right to change the structure and content of all courses at any time.

PRICING AND HELPFUL INFORMATION

FOR QUESTIONS AND ASSISTANCE

Call the Learning Help Desk at: 800-247-2346
Monday – Friday,
8:00 a.m. – 4:30 p.m. Central Time
or email us at:
training.na@motorolasolutions.com

HOW TO MAKE PAYMENTS WHEN ENROLLING IN A COURSE

HOW TO MAKE PAYMENTS WHEN REGISTERING

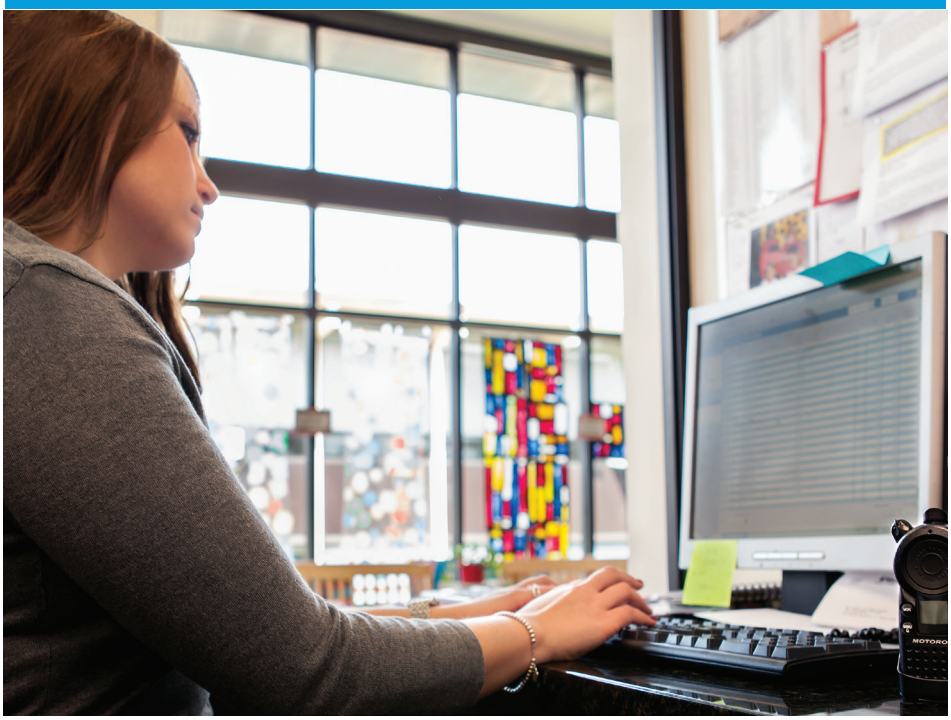
For your convenience we accept the following methods of payment:

- Credit Card
- Purchase Order
- Company Check
- Training Banks

If prepayment is required to secure your registration, it must be received by Motorola 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 NORTH AMERICA TRAINING SCHEDULE AND PRICE SHEET



SCHEDULE AND PRICE SHEET

Click on the above download link to access the schedule and pricing file or visit: **www.motorolasolutions.com/nalearnschedule2016**

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 800-247-2346, prompt 4.

TRAINING BANKS

Whether you're a technician, system manager or radio user, you rely on Motorola Solutions Training to obtain the necessary knowledge to get the full potential out of your Motorola equipment. The Motorola Solutions Training Bank is a discounted, pre-paid, non-expiring debit account that allows you to budget up front for your training needs. Training Banks can be applied towards all training options including, Instructor-Led Tailored Field Courses.

There are several benefits to Training Banks including:

- Allows you to budget up front for training needs
- Provides cost savings through discounted pricing tiers to maximize your training investment
- Does not require multiple POs, thus reducing internal approval cycle time and paperwork
- Training Banks do not expire

For more information, please visit us on the web at motorolasolutions.com/learning or email us at **training.na@motorolasolutions.com**.

Note: Training Banks are only applicable to non-federal government customers.

OPERATOR TRAINING

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 applications**

TRAIN THE TRAINER

With this option, Motorola trains people you have identified as qualified instructors so that they in turn can train each individual user in your organization. These classes are typically done on site using your equipment. The interactive End User Tool Kit (iEUTK) and/or tailored end user materials can be utilized.

AUDIENCE

This course is geared for customers who have an experienced, dedicated training staff in their organization. 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 organization are trained by a Motorola instructor. These classes are typically done on site using your equipment. The interactive End User Tool Kit (iEUTK) and/or tailored end user materials support this training option.

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 organization'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.

Note: The interactive End User Tool Kit (iEUTK) is not sold as a standalone product but included with our instructor-led, Train-The-Trainer or Operator Training.

COURSES FOR CONSOLE PRODUCTS

- MCC 7000 Series Dispatch Console Administrator Training
- MCC 7000 Series Dispatch Console Operator Training
- MKM 7000 Console Alias Manager
- MCC 5500 Dispatch Console Administration
- MCC 5500 Dispatch Console Operator Training
- MOTOBRIDGE IP Interoperable Solution Dispatch Console Operator
- MOTOBRIDGE Administration Control Panel (ACP)
- MIP 5000 Dispatch Console
- MCD 5000 Operator

COURSES FOR MOBILES & PORTABLES

- APX™ Series
- MOTOTRBO™ Series
- XTL™/XTS Series

COURSES

USING THE TRAINING ROADMAPS

The test icon

found in the roadmaps 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

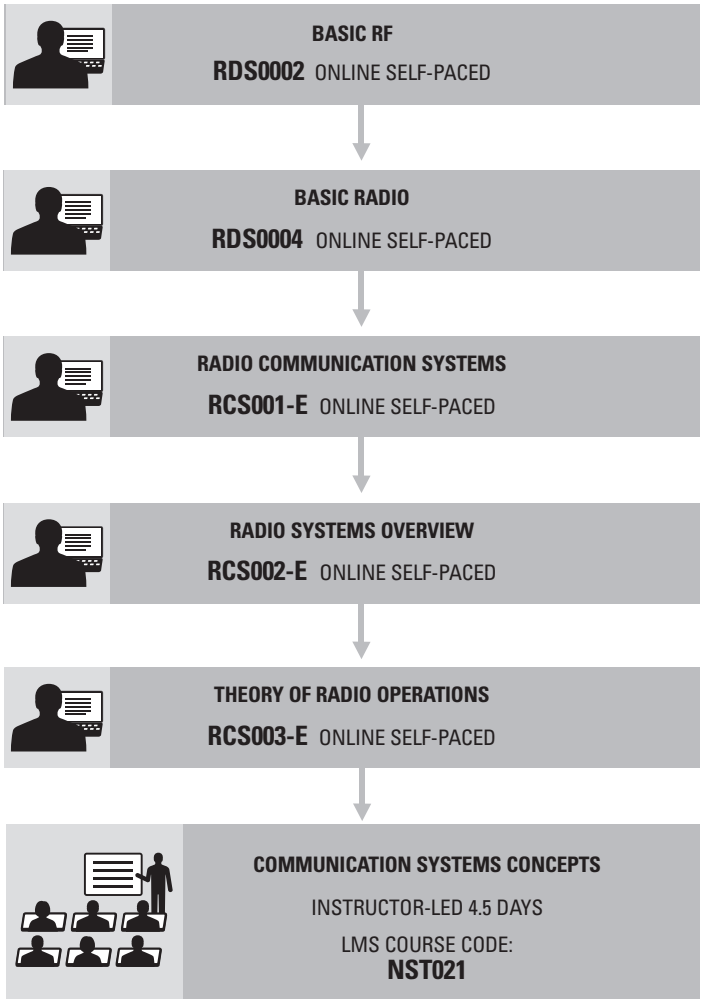
BASIC RF (RDS0002)	13
BASIC RADIO (RDS0004)	13
BASIC NETWORKING (RDS0003)	13
RADIO COMMUNICATION SYSTEMS (RCS001-E)	14
RADIO SYSTEMS OVERVIEW (RCS002-E)	14
THEORY OF RADIO OPERATION (RCS003-E)	14
BRIDGING THE KNOWLEDGE GAP FOR ASTRO® 25 – TECHNICIAN (ACT100-E)	15
BRIDGING THE KNOWLEDGE GAP FOR ASTRO 25 – SYSTEM ADMINISTRATOR (ACT101-E)	15
SITE INSTALLATION PRACTICES WORKSHOP (R56) (NST925)	15
COMMUNICATION SYSTEMS CONCEPTS (NST021)	16
SERVER AND VIRTUALIZATION FOUNDATION (SRV1010) NEW	16
NETWORKING ESSENTIALS IN MOTOROLA COMMUNICATIONS EQUIPMENT (NST762)	17
MOTOTRBO™ SYSTEMS APPLIED NETWORKING (PCT2007) NEW	17
ASTRO 25 SYSTEMS APPLIED NETWORKING (NWT003)	17

THE LEARNING MANAGEMENT SYSTEM (LMS)

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

RF FUNDAMENTALS

RF BASICS / RADIO SYSTEM BASICS



CURRICULUM COMPLETE

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

IP/NETWORKING FUNDAMENTALS

BASIC NETWORKING
RDS0003 ONLINE SELF-PACED

NETWORKING ESSENTIALS IN MOTOROLA COMMUNICATIONS SYSTEM
INSTRUCTOR-LED 4.5 DAYS
LMS COURSE CODE:
NST762

CHOOSE ONE OF THE FOLLOWING COURSES BELOW ACCORDING TO YOUR SOLUTION SYSTEM

ASTRO® 25 SOLUTIONS

ASTRO 25 SYSTEMS APPLIED NETWORKING
INSTRUCTOR-LED 4.5 DAYS
LMS COURSE CODE:
NWT003

OR

MOTOTRBO™ SOLUTIONS

MOTOTRBO SYSTEMS APPLIED NETWORKING
INSTRUCTOR-LED 3.5 DAYS
LMS COURSE CODE:
PCT2007

CURRICULUM COMPLETE

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

NEW

CLICK HERE TO GO TO PAGE 18 FOR MORE DETAILS ON ASTRO 25

ASTRO 25 Fleetmapping
LMS Course Code: **RDS1017**

ASTRO 25 Domain Controller Administration
LMS Course Code: **AST2015**

NEW

CLICK HERE TO GO TO PAGE 53 FOR MORE DETAILS ON MOTOTRBO

MOTOTRBO Connect Plus System Academy
LMS Course Code: **PCT3003**

MOTOTRBO System Academy
LMS Course Code: **PCT3002**

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: **1 HOUR**
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
Motorola Solutions Partners and Employees

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 organizations

REQUISITE KNOWLEDGE
None

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

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

RADIO COMMUNICATION SYSTEMS

COURSE OVERVIEW
This course provides associates in the technology and telecommunications field knowledge on wireless communications systems. How two-way radio works, and the basic components of a communication system are presented and explained. Simplex, duplex, and repeater operational theory is provided in addition to learning targeted on spectrum, frequency, and range considerations. Participants will also learn foundational operational theory on voting systems, trunking systems, and data communication systems in addition to the role transmission line, antenna, and frequency modulation play in the performance of a two-way radio communication system. Interactive testing accompanies each learning module to help the student retain and apply their foundational knowledge.

AUDIENCE
General

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Understand the terminology associated with two-way radio communication equipment and systems
- Describe the purpose and characteristics of basic two-way radio systems, dispatcher systems, wide and total coverage systems, trunking systems and digital communication systems
- Understand decibels, transmission line characteristics, antennas and modulation concepts

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
RCS001-E

RADIO SYSTEMS OVERVIEW

COURSE OVERVIEW
This course will provide associates in the wireless technology and telecommunications field with foundational technical knowledge on Motorola two-way radio system solutions including conventional systems, trunked systems and ASTRO® 25 digital systems. Each learning module provides instruction on the specific components of the system and engages the student with graphic interaction and challenging questions. After completing this program students will have an excellent foundational, and technical understanding of the primary two-way radio systems utilized by Motorola business and government solution customers. Interactive testing accompanies each learning module to help the student retain and apply their foundational technical knowledge.

AUDIENCE
General

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the signaling features of a conventional radio
- Explain the basic operation of a trunked system
- Describe the signaling features of a trunked radio
- Explain the basic operation of a digital system
- Describe the signaling features of a digital radio
- Explain and understand the characteristics of analog to digital signaling
- Describe digital features including: encryption, error protection, voice and data integration, and continuous unit ID

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
RCS002-E

THEORY OF RADIO OPERATION

COURSE OVERVIEW
This course will provide associates with foundational technical knowledge on the theory of radio operation…how it works. The learning in this course will include basic radio operation, transmitter and receiver operation, frequency generation, control functions, and digital operation. Each learning module provides instruction on the specific operational characteristics of the system and engages the student with graphic interaction and comprehensive theory pertaining to the targeted learning objectives. After completing this course students will have a better understanding of the core operational characteristics of a wireless communication system and be able to apply their foundational knowledge in their technology related discipline. Interactive testing accompanies each learning module to help the student retain and apply their knowledge.

AUDIENCE
General

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain the basic operation of a two-way radio.
- Understand the basic signal flow of a two-way radio
- Describe the elements that comprise a two-way radio.
- Explain the how and why of frequency generation circuitry
- Explain the how and why of receiver circuitry.
- Explain the basic operation of the transmitter circuitry
- Explain the basic operation of the controller/audio circuitry
- Describe the digital elements in a digital radio
- Understand and describe the basic steps involved in the digital radio transmitter and receiver

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
RCS003-E

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

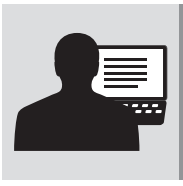
BRIDGING THE KNOWLEDGE GAP FOR ASTRO® 25 – TECHNICIAN

COURSE OVERVIEW
This seven-module course is designed to bring Technicians from different technical backgrounds and experience levels to a common starting point for the ASTRO® 25 curriculum. This course provides seven modules from the basic concepts of radio communication systems and computer networking features, through the evolution that led to the ASTRO 25 trunking system's architecture.

AUDIENCE
This course is intended for System Technicians, and other ASTRO 25 system users who are new to trunked radio systems. Also those with experience in non-IP-based radio systems like SmartNet and SmartZone.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain the different radio system concepts as applied to conventional and trunked systems
- Compare analog radio communication signaling to ASTRO 25 radio communications signaling
- Identify different communication concepts using representative block diagrams of the respective systems
- Compare radio system communication concepts using representative block diagrams of the respective systems
- Compare how voice and data, information flow through different radio communication system types and how the signaling information controls that flow of information
- Describe the features of each radio communication system in terms of advantages and disadvantages

REQUISITE KNOWLEDGE
None



ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
ACT100-E

BRIDGING THE KNOWLEDGE GAP FOR ASTRO® 25 – SYSTEM ADMINISTRATOR

COURSE OVERVIEW
This five-module course is designed to bring Administrators from different technical backgrounds and experience levels to a common starting point for the ASTRO® 25 curriculum. This course provides seven modules from the basic concepts of radio communication systems and computer networking features, through the evolution that led to the ASTRO 25 trunking system's architecture.

AUDIENCE
System Administrators who are new to trunked radio systems. Also those with experience in non-IP-based radio systems like SmartNet and SmartZone.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Identify different communication concepts using representative block diagrams of the respective systems
- Compare radio system communication concepts using representative block diagrams of the respective systems.
- Compare how voice and data information flows through different radio communication system types, and how the signaling information controls that flow of information
- Describe the features of each radio communication system in terms of advantages and disadvantages
- Explain the Trunked Radio System Concepts

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
ACT101-E

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 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: **3.5 DAYS**
LMS COURSE CODE:
NST925

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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: **4.5 DAYS**
LMS COURSE CODE:
NST021

SERVER & VIRTUALIZATION FOUNDATIONS

NEW

COURSE OVERVIEW

The Server and Virtualization Foundation course will prepare students to install a server and understand the basics of a supported virtualized application. The course covers BIOS configuration, installing a supported virtualized application, installing a client and server OS and verifying operations. The course includes hands-on lab exercises.

AUDIENCE

Technical Personnel, Employees, Partners, Customers

COURSE OBJECTIVES

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

- Configure BIOS parameters for server hardware
- Investigate sources for possible solutions to various installation scenarios
- Demonstrate basic knowledge of supported virtualization application, including capacity
- Install supported virtualization application on a server platform
- Configure supported virtualization application parameters of supported server hardware
- Install a Client OS and Server OS in a virtual environment
- Investigate sources for possible solutions to various installation scenarios
- Verify Server/Client operations in a virtual environment

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

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

NETWORKING ESSENTIALS IN MOTOROLA COMMUNICATIONS EQUIPMENT

COURSE OVERVIEW
The Networking Essentials in Motorola Communications Equipment course provides the technician with the essential elements of networking required for the installation and maintenance of most Motorola 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 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: **4.5 DAYS**
LMS COURSE CODE:
NST762

MOTOTRBO™ SYSTEMS APPLIED NETWORKING

NEW

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 Communication Systems (NST762)

INSTRUCTOR-LED
LENGTH: **3.5 DAYS**
LMS COURSE CODE:
PCT2007

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 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 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 Communications Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
NWT003

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 SYSTEMS PORTFOLIO

FLEXIBLE CHOICES TO MEET EVERY NEED

SINGLE SITES

CONVENTIONAL	TRUNKED
STANDALONE CONVENTIONAL	EXPRESS TRUNKING
P25 DIGITAL ANALOG	P25 DIGITAL TDMA
1 SITE	1 SITE

SIMPLIFIED CONFIGURATIONS

CONVENTIONAL WITH DATA	TRUNKED WITH DATA
K CORE	L CORE
P25 DIGITAL ANALOG INTEGRATED DATA	P25 DIGITAL FDMA TDMA INTEGRATED DATA
50 CHANNELS	5 SITES

FULLY FEATURED CONFIGURATIONS

TRUNKED AND CONVENTIONAL WITH DATA	MULTI-ZONE TRUNKED AND CONVENTIONAL WITH DATA
M1/M2 CORE	M3 CORE
P25 DIGITAL ANALOG FDMA TDMA INTEGRATED DATA ENHANCED DATA HPD	P25 DIGITAL ANALOG FDMA TDMA INTEGRATED DATA ENHANCED DATA HPD
24 SITES	7 ZONES 150 SITES

ASTRO® 25 IV&D SYSTEM COURSES

ASTRO® 25 SYSTEMS FLEETMAPPING (RDS1017) NEW	30
UNS OPERATIONS AND ADMINISTRATION (AST2007) NEW	30
ASTRO 25 SECURITY PATCH MANAGEMENT (AST2001)	30
ASTRO 25 IV&D TRUNKING WITH M CORE SYSTEM OVERVIEW (ACS715200)	31
ASTRO 25 IV&D INTRODUCTION TO RADIO SYSTEM MANAGEMENT APPLICATIONS (ACS716201)	31
ASTRO 25 IV&D CONVENTIONAL WITH M CORE OVERVIEW (ACS715420)	31
ASTRO 25 IV&D TRUNKING WITH L CORE SYSTEM OVERVIEW (ACS715430)	32
ASTRO 25 IV&D CONVENTIONAL WITH K CORE SYSTEM OVERVIEW (ACS715400)	32
DEPLOY FOR ASTRO 25 IV&D L CORE (ACS716460)	32
DEPLOY FOR ASTRO 25 IV&D CONVENTIONAL WITH K CORE (ACS716470)	33
ASTRO 25 IV&D SECURE COMMUNICATIONS WORKSHOP (ACS713207)	33
ASTRO 25 IV&D M CORE WORKSHOP (ACS716103)	34
NEW FEATURES INTRODUCTION FOR ASTRO 25 IV&D SYSTEMS (AST1029)	34

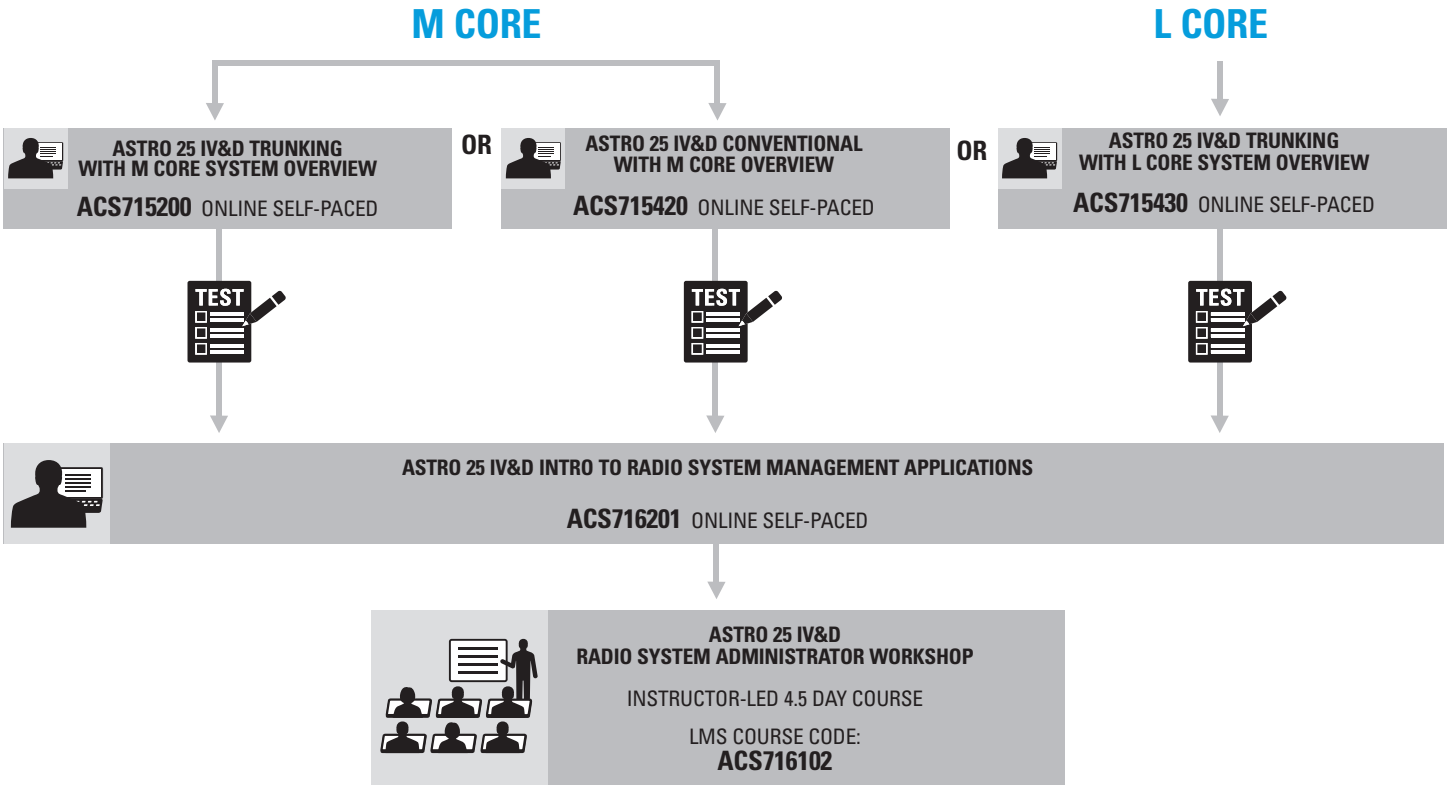
THE LEARNING MANAGEMENT SYSTEM (LMS)

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

ASTRO® 25 IV&D SYSTEM COURSES (CONTINUED)

ASTRO® 25 IV&D K CORE WORKSHOP (ACS716410)	35
ASTRO 25 IV&D CONVENTIONAL RF SITE WORKSHOP (ACS716440)	36
ASTRO 25 IV&D RADIO SYSTEM ADMINISTRATOR WORKSHOP (ACS716102)	36
ASTRO 25 IV&D IP BASED DIGITAL SIMULCAST WORKSHOP (ACS716217)	36
ASTRO 25 IV&D GTR 8000 REPEATER SITE WORKSHOP (ACS716208)	37
STANDALONE GTR 8000 CONVENTIONAL BASE RADIO (AST2006) NEW	37
ASTRO 25 ISSI 8000 / CSSI 8000 FEATURE OVERVIEW (AST2005)	38
OVERVIEW FOR ASTRO 25 IV&D DYNAMIC SYSTEM RESILIENCE (ACS715023)	38
ASTRO 25 IV&D INTERFACING SMARTZONE 3600 SYSTEMS (ACS713360)	38
ASTRO 25 IV&D DIGITAL MUTUAL AID (ACS78210)	39
ASTRO 25 IV&D ENHANCED TELEPHONE INTERCONNECT (ACS715480)	39
ASTRO 25 IV&D INFORMATION ASSURANCE SYSTEM (ACS715211)	40

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR



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.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D M CORE TECHNICIAN

M CORE

ASTRO 25 IV&D SYSTEM OVERVIEW WITH M CORE
ACS715200 ONLINE SELF-PACED

OR

ASTRO 25 IV&D CONVENTIONAL WITH M CORE OVERVIEW
ACS715420 ONLINE SELF-PACED

TEST

TEST

ASTRO 25 IV&D INTRO TO RADIO SYSTEM MANAGEMENT APPLICATIONS
ACS716201 ONLINE SELF-PACED

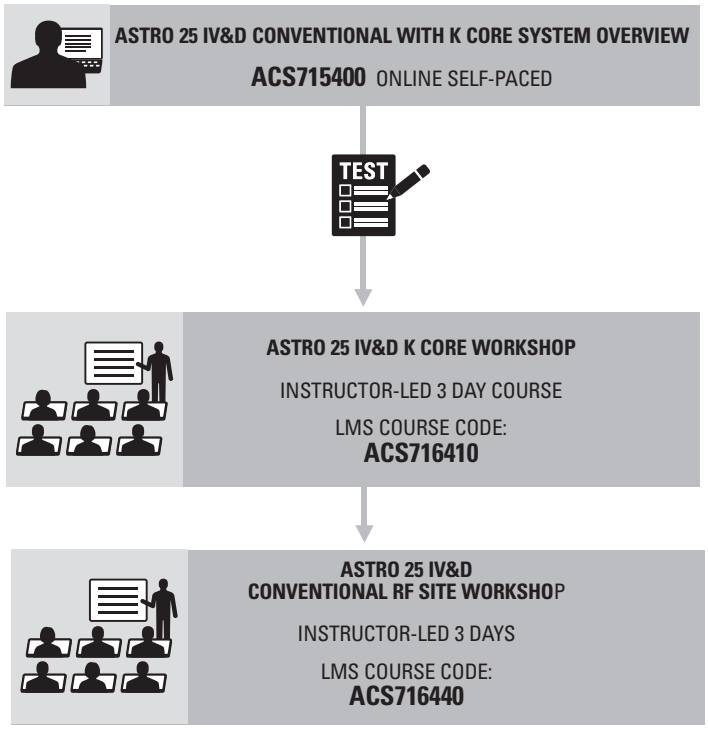
ASTRO 25 IV&D M CORE WORKSHOP
INSTRUCTOR-LED 4.5 DAY COURSE
LMS COURSE CODE:
ACS716103

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 ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D K CORE TECHNICIAN

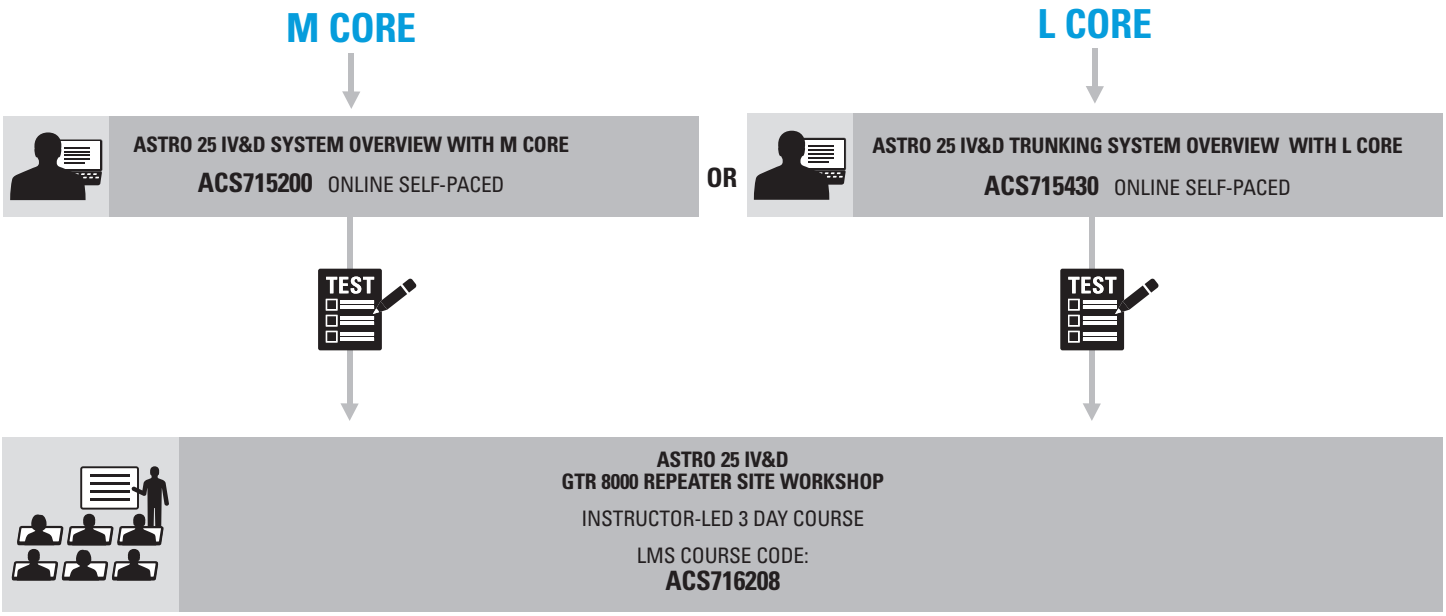


RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD UNDERSTAND THE ASTRO 25 K CORE COMPONENTS AND SERVICE STRATEGY. PARTICIPANT CAN USE THE CONFIGURATION MANAGER TO CONFIGURE SYSTEM COMPONENTS AND SUBSCRIBERS. PARTICIPANT SHOULD BE ABLE TO INTERPRET SYSTEM ALARMS, PROPOSE SOLUTIONS FOR SYSTEM FAILURES, AND RESTORE EQUIPMENT TO PROPER FUNCTIONALITY.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

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

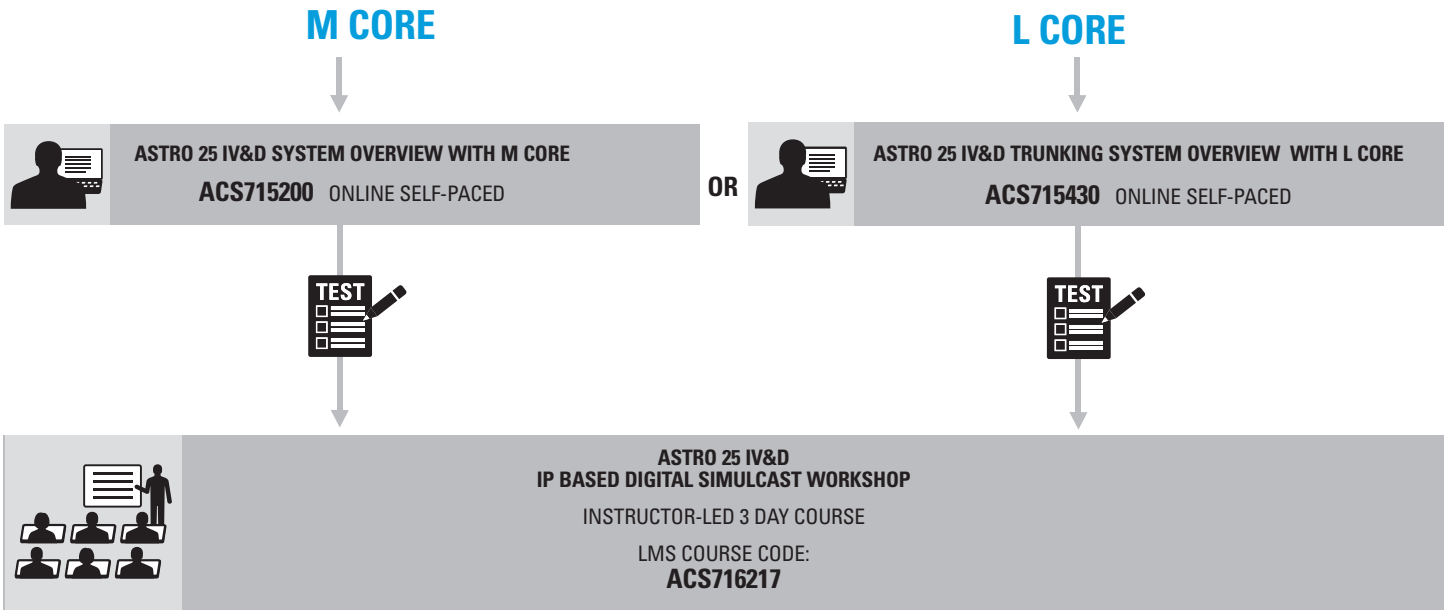


RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT CAN MAINTAIN AN ASTRO25 REPEATER SITE INCLUDING: GTR 8000 BASE STATION, GCP8000 SITE CONTROLLER AND OTHER SITE EQUIPMENT.
*PARTICIPANT PERFORMS ALIGNMENTS TROUBLESHOOTING AND FIELD REPLACEMENT OF SITE DEVICES DURING COURSE.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D IP SIMULCAST SITE TECHNICIAN



RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD BE ABLE TO MAINTAIN AN ASTRO 25 REPEATER SITE INCLUDING THE GTR 8000 BASE STATION, GCP8000 SITE CONTROLLER, SITE COMPARATOR AND OTHER SITE EQUIPMENT.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D CONVENTIONAL RF SITE TECHNICIAN

M CORE

ASTRO 25 IV&D CONVENTIONAL WITH M CORE OVERVIEW
ACS715420 ONLINE SELF-PACED

TEST

OR

K CORE

ASTRO 25 IV&D CONVENTIONAL WITH K CORE SYSTEM OVERVIEW
ACS715400 ONLINE SELF-PACED

TEST

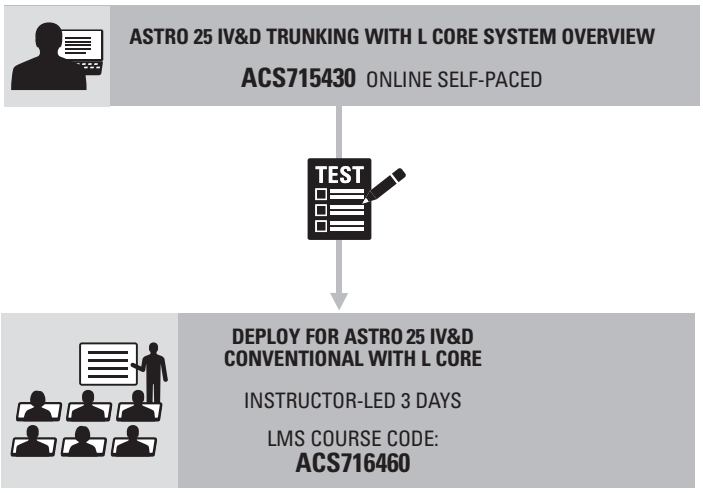
ASTRO 25 IV&D CONVENTIONAL RF SITE WORKSHOP
INSTRUCTOR-LED 3 DAYS
LMS COURSE CODE:
ACS716440

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD BE ABLE TO MAINTAIN AN ASTRO 25 REPEATER SITE INCLUDING THE GTR 8000 BASE STATION, GCP8000 SITE CONTROLLER, SITE COMPARATOR AND OTHER SITE EQUIPMENT.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D L CORE DEPLOY TECHNICIAN

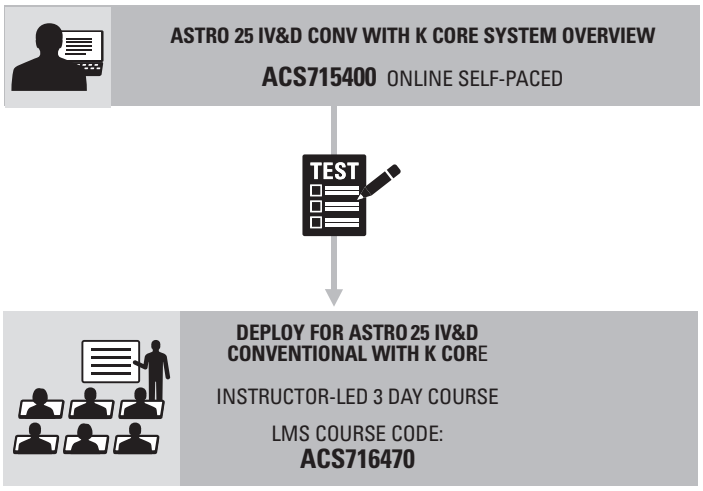


RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT UNDERSTANDS ASTRO 25 L CORE COMPONENTS, VIRTUAL SERVERS AND SERVICE STRATEGY. PARTICIPANT CAN INTERPRET SYSTEM ALARMS, PROPOSE SOLUTIONS FOR SYSTEM FAILURES, AND RESTORE EQUIPMENT TO PROPER FUNCTIONALITY.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® 25 IV&D K CORE DEPLOY TECHNICIAN



RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT UNDERSTANDS THE ASTRO 25 K CORE COMPONENTS AND SERVICE STRATEGY. PARTICIPANT CAN USE THE CONFIGURATION MANAGER TO CONFIGURE SYSTEM COMPONENTS AND SUBSCRIBERS. PARTICIPANT IS ABLE TO INTERPRET SYSTEM ALARMS, PROPOSE SOLUTIONS FOR SYSTEM FAILURES, AND RESTORE EQUIPMENT TO PROPER FUNCTIONALITY.

OPTIONAL TRAINING ROADMAP AVAILABLE. CLICK ON THIS LINK TO GO TO PAGE 29 FOR ADDITIONAL DETAILS.

ASTRO® IV&D OPTIONAL TRAINING CURRICULUM

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

SPECIALIZED INFRASTRUCTURE TRAINING

ISSI GATEWAY TO SUPPORT INTERFACING TO ASTRO 25

ASTRO 25
IV&D ISSI 8000 / CSSI 8000 FEATURE OVERVIEW
ONLINE SELF-PACED
AST2005

DYNAMIC SYSTEM RESILIENCE

ASTRO 25
IV&D DYNAMIC SYSTEM RESILIENCE
ONLINE SELF-PACED
ACS715023

SMART X TO SUPPORT CIRCUIT-BASED RF SITES

ASTRO 25
IV&D INTERFACING SMARTZONE 3600 SYSTEMS
ONLINE SELF-PACED
ACS713360

SPECIALIZED FEATURE TRAINING

OTAR

ASTRO 25 IV&D SECURE COMMUNICATIONS WORKSHOP
INSTRUCTOR- LED
4.5 DAYS
ACS713207

NETWORK SECURITY

ASTRO 25 IV&D INFORMATION ASSURANCE
ONLINE SELF-PACED
ACS715211

MUTUAL AID

ASTRO 25 IV&D DIGITAL MUTUAL AID
ONLINE SELF-PACED
ACS78210

TELEPHONE INTERCONNECTION

ASTRO 25 IV&D ENHANCED TELEPHONE INTERCONNECT
ONLINE SELF-PACED
ACS715480

ASTRO® 25 SYSTEMS FLEETMAPPING

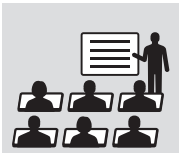
NEW

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
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 optimizing the system resources
- Describe the content to assist with fleetmapping decisions
- Discuss frequency band plan organization 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: **4.5 DAYS**
LMS COURSE CODE:
RDS1017

UNS OPERATION AND ADMINISTRATION

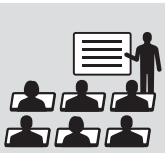
NEW

COURSE OVERVIEW
The purpose of this course is to provide the steps to operate and maintain a customer's UNS within their Motorola system (ASTRO® 25). The course should provide system so students can have hands-on practice going through the operation, maintenance, and troubleshooting steps listed in 6871026P41-A UNS Administrators Guide.

AUDIENCE
Customers who would be responsible for the operation and maintenance of a customer's UNS within their Motorola system (ASTRO 25).

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
- Identify the UNS tools to administer the system

REQUISITE KNOWLEDGE
None



INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
AST2007

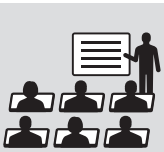
ASTRO® 25 SECURITY PATCH MANAGEMENT

COURSE OVERVIEW
Provide Motorola 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 radio system 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 (ACS716103)



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

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D WITH M CORE SYSTEM OVERVIEW

COURSE OVERVIEW
ASTRO® 25 IV&D Trunking with M Core System Overview self-paced course is the starting point of all ASTRO 25 IV&D Trunking with M Core Systems. In order to take other classes, students are required to complete this course and obtain a passing score on the corresponding test. It presents a high-level description of the system's call flow capabilities, components, features and benefits.

AUDIENCE
System Managers, Technical System Managers, System Technicians and other Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- List and describe the ASTRO 25 IV&D Trunking with M Core System features and capabilities
- Describe the ASTRO 25 with M Core system sites and their components
- Describe in detail the paths used for control, voice, and data in an ASTRO 25 IV&D Trunking with M Core system
- List the servers and databases used in an ASTRO 25 IV&D Trunking with M Core system

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS715200

ASTRO® 25 IV&D INTRODUCTION TO RADIO SYSTEM MANAGEMENT APPLICATIONS

COURSE OVERVIEW
This course provides a high-level overview of the Motorola Radio System Management applications through recorded demonstrations of common system tasks.

AUDIENCE
System Managers, Technical System Managers, System Technicians, and other Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the purpose of Network Management applications used in an ASTRO® system
- Identify high-level capabilities of those Network Administrator applications
- Familiarize with common operations allowed by those Network Administrator applications

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Conventional with M Core System Overview for (ACS715420)
- ASTRO 25 IV&D Trunking with L Core System Overview for (ACS715430)

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS716201

ASTRO® 25 IV&D CONVENTIONAL WITH M CORE OVERVIEW

COURSE OVERVIEW
The ASTRO® 25 IV&D Conventional with M Core Overview self-paced course is the starting point of all ASTRO 25 IV&D Conventional with M Core systems. In order to take other classes, students are required to complete this course and obtain a passing score on the corresponding test. It presents a high-level description of the system's call flow capabilities, components, features and benefits.

AUDIENCE
System Managers, Technical System Managers, System Technicians and other Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- List and describe the ASTRO 25 IV&D Conventional with M Core system features and capabilities
- Describe the ASTRO 25 IV&D Conventional with M Core system sites and their components
- Describe in detail the paths used for control, voice, and data in an ASTRO 25 IV&D Conventional with M Core system
- List the servers and databases used in an ASTRO 25 IV&D Conventional with M Core system

REQUISITE KNOWLEDGE
Completion of the following courses or equivalent knowledge:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS715420

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D TRUNKING WITH L CORE OVERVIEW

COURSE OVERVIEW
The ASTRO® 25 IV&D with L Core Overview self-paced course is the starting point of all ASTRO 25 IV&D L Core systems. In order to take other classes, students are required to complete this course and obtain a passing score on the corresponding test. It presents a high-level description of the system's call flow capabilities, components, features and benefits.

AUDIENCE
System Managers, Technical System Managers, System Technicians and other Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- List and describe the ASTRO 25 IV&D with L Core System features and capabilities
- Describe the ASTRO 25 IV&D with L Core System sites and their components
- Describe in detail the paths used for control, voice, and data in an ASTRO 25 IV&D with L Core System
- List the servers and databases used in an ASTRO 25 IV&D with L Core System

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
ACS715430

ASTRO® 25 IV&D CONVENTIONAL WITH K CORE SYSTEM OVERVIEW

COURSE OVERVIEW
The ASTRO® 25 IV&D Conventional with K Core Overview self-paced course is the starting point of all ASTRO 25 IV&D Conventional with K Core systems. In order to take other classes, students are required to complete this course and obtain a passing score on the corresponding test. It presents a high-level description of the system's call flow capabilities, components, features and benefits.

AUDIENCE
System Managers, Technical System Managers, System Technicians and other Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- List and describe the ASTRO 25 IV&D Conventional with K Core system features and capabilities
- Describe the ASTRO 25 IV&D with Conventional with K Core system sites and their components
- Describe in detail the paths used for control, voice, and data in an ASTRO 25 IV&D Conventional with K Core
- List the servers and databases used in an ASTRO 25 IV&D Conventional with K Core

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
ACS715400

DEPLOY FOR ASTRO® 25 IV&D TRUNKING WITH L CORE

COURSE OVERVIEW
This course provides an overview and implementation plan for deployment of an L1/L2 ASTRO® 25 IV&D 7.13 system, contains information and procedures for bringing Motorola Manufacturing Representatives (MRs) up to speed on how to assemble and install the L1/L2 system for customers, and acts as a resource on how to reference other training materials for troubleshooting and additional L1/L2 system tasks.

AUDIENCE
Motorola Manufacturing Representatives (MRs) involved in the installation of L1/L2 systems

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Correctly and efficiently install and locally configure an L Core system that has been staged by CCSI
- Perform initial Power On of equipment to verify proper operation
- Commission the L Core System once it has been installed
- Test the L Core System per Acceptance Test Plans (ATP)
- Back up the Infrastructure and System Databases of the L Core System

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Networking Essentials in Communication Equipment (NST762)
- Site Installation Practices Workshop (R56) (NST925)

Required:
- ASTRO 25 IV&D Trunking with L Core System Overview (ACS715430)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716460

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

DEPLOY FOR ASTRO® 25 IV&D CONVENTIONAL WITH K CORE

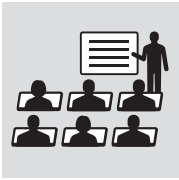
COURSE OVERVIEW
This course provides an overview and implementation plan for deployment of an K1/K2 ASTRO® 25 IV&D 7.X system, contains information and procedures for bringing Motorola Manufacturing Representatives (MRs) up to speed on how to install the K1/K2 system for customers, and acts as a resource on how to reference other training materials for troubleshooting and additional K1/K2 system tasks.

AUDIENCE
Motorola Manufacturing Representatives (MRs) involved in the installation of K1/K2 systems.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Correctly and efficiently install and locally configure a K Core system that has been staged by CCSI
- Perform initial Power On of equipment to verify proper operation
- Commission the K Core System once it has been installed
- Test the K Core System per Acceptance Test Plans (ATP)
- Back up the Infrastructure and System Databases of the K Core System

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Networking Essentials in Communication Equipment (NST762)
- Site Installation Practices Workshop (R56) (NST925)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D Conventional with K Core System Overview (ACS715400)



INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716470

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, organize, 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 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
ACS713207

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D M CORE WORKSHOP

COURSE OVERVIEW
The ASTRO® 25 IV&D with 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
- Utilize the troubleshooting tools to diagnose a fault and restore the ASTRO 25 IV&D M Core to the level of the Motorola-supported service strategy

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 – Technician (ACT100-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Conventional with M Core System Overview (ACS715420)
- ASTRO 25 IV&D Introduction to Radio System Management Applications (ACS716201)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
ACS716103

NEW FEATURES INTRODUCTION FOR ASTRO® 25 IV&D SYSTEMS

COURSE OVERVIEW
This course describes the new features introduced in the ASTRO® 25 7.15 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 7.16 system release
- Describe optional enhancements in the ASTRO 25 7.16 system release
- Describe the key optional features available in the ASTRO 25 7.16 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

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D K CORE WORKSHOP

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. (**Go to page 43 for detailed instructions on MCC 7000 series consoles in a K-core system.)** 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:

- Describe the ASTRO 25 IV&D Conventional K Core
- Describe the functional and radio subsystems that comprise the ASTRO 25 IV&D Conventional K Core System
- Configure parameters in the Configuration Manager application
- Identify the advantages and disadvantages of options available for the configuration of system infrastructure and user parameters
- Explain and discuss call flow and data flow through ASTRO 25 IV&D Conventional K Core
- Perform recommended routine maintenance procedures for the ASTRO 25 IV&D Conventional K Core
- Utilize the troubleshooting tools to diagnose a fault and restore the ASTRO 25 IV&D Conventional K Core to the level of the Motorola-supported service strategy

REQUISITE KNOWLEDGE

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

- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:

- ASTRO 25 IV&D Conventional with K Core System Overview (ACS715400)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716410

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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:
- Identify the ASTRO 25 IV&D Conventional RF site topologies
- Describe the functionality components of the different ASTRO 25 IV&D Conventional RF Sites topologies
- Configure and troubleshoot components of the different ASTRO 25 IV&D Conventional RF Sites topologies
- Configure and troubleshoot the Network Transport subsystem of the different ASTRO 25 IV&D Conventional RF Sites topologies

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D Conventional with M Core System Overview (ACS715420)
- ASTRO 25 IV&D Conventional with K Core System Overview (ACS715400)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716440

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 organization 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
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Conventional with M Core System Overview (ACS715420)
- ASTRO 25 IV&D Trunking with L Core System Overview (ACS715430)

AND
- ASTRO 25 IV&D Introduction to Radio System Management Applications (ACS716201)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
ACS716102

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 (ACT100-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Trunking with L Core System Overview (ACS715430)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716217

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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 (ACT100-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Trunking with L Core System Overview (ACS715430)

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
ACS716208

STANDALONE GTR 8000 CONVENTIONAL BASE RADIO

NEW

COURSE OVERVIEW
This course is designed to give the participants the ability to align, troubleshoot and repair the Standalone GTR 8000 Base Station/Repeater to Motorola Solutions recommended service levels.

Emphasis is placed on the use of Configuration Service Software (CSS) and its role in configuration, maintenance, diagnostics, alignments, and optimization of the Standalone GTR 8000 Base Radio/ Repeater

AUDIENCE
Maintenance Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Understand basic concepts of the various radio systems supported by the GTR 8000 Conventional Base Radio
- Identify the equipment modules of the GTR 8000 Conventional Base Radio
- Operate and perform routine maintenance on the GTR 8000 Conventional Base Radio
- Understand basic operational theory of GTR 8000 Conventional Base Radio components
- Configure the GTR 8000 Conventional Base Radio using Configuration Service Software (CSS)
- Identify the different backplane connections on the GTR 8000 Conventional Base Radio
- Perform calibration and alignment adjustments for the GTR 8000 Conventional Base Radio
- Troubleshoot problems and identify/replace faulty modules in the GTR 8000 Conventional Base Radio

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- General RF Knowledge and Skills
- Basic Knowledge of Two-Way Radio systems

INSTRUCTOR-LED
LENGTH: **2 DAYS**
LMS COURSE CODE:
AST2006

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 ISSI 8000 / CSSI 8000 FEATURE OVERVIEW

COURSE OVERVIEW
The ISSI 8000 / CSSI 8000 Feature Overview self-paced course describes the optional Inter-RF Subsystem Interface available in an ASTRO® 25 IV&D System. It presents a description of the feature, its benefits and components, call processing scenarios, and an overview of the installation process.

AUDIENCE
System Managers, Technical System Managers, System Technicians, Application Users

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the ISSI 8000 / CSSI 8000 feature
- Describe the components of the ISSI 8000 / CSSI 8000 feature
- Describe the communication scenarios if this feature is enabled
- Follow the installation and configuration process if this feature is added to an ASTRO system

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 – Technician (ACT100-E)

Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Trunking with L Core System Overview for (ACS715430)

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
AST2005

ASTRO® 25 IV&D DYNAMIC SYSTEM RESILIENCE

COURSE OVERVIEW
The ASTRO® 25 IV&D Dynamic System Resilience (DSR) Overview is a self-study training course intended to provide a technical overview of DSR. The course describes how DSR adds a geographically separate backup for the Master Site to protect against a catastrophic failure.

AUDIENCE
System Administrators, System Technicians, Field Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Differentiate between a non-DSR Master Site and a DSR Master Site

Describe the DSR components, operation and functionality of each of the following services:
- Voice
- Data
- Network Management
- Network Transport
- IP Services
- MOSCAD™

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS715023

ASTRO® 25 IV&D INTERFACING SMARTZONE 3600 SYSTEMS (SMARTX)

COURSE OVERVIEW
ASTRO 25 IV&D Trunked System - Interfacing SmartZone 3600 Systems with SmartX is designed to allow communication between subscriber radios at existing 3600 RF sites and an ASTRO 25 IV&D system. It is based on the Voice Processor Module hardware platform and enables the continued use of 3600 RF sites and subscriber radios with the release of ASTRO 25 7.7 or higher. This self-study training course is intended to provide information related to the installation and functionality of, including the hardware and software associated with, the SmartX Site Converter in the ASTRO 25 IV&D.

AUDIENCE
System Administrators, System Technicians, Field Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the SmartX Site Converter and its operation within the system
- Identify the major components and functionality.
- Know the requirements and components necessary to install a SmartX Site Converter

REQUISITE KNOWLEDGE
None

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS713360

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D DIGITAL MUTUAL AID

COURSE OVERVIEW
This web based course describes the functionality and the hardware and software associated with using Mutual Aid in the ASTRO® 25 IV&D System.

AUDIENCE
System Administrators, System Technicians, Field Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Define the Mutual Aid feature
- Determine the configurations available for mutual aid in an ASTRO 25 IV&D system
- List the components for use with Digital Mutual Aid and Analog Mutual Aid in the ASTRO 25 IV&D
- Configure Digital Mutual Aid and Analog Mutual Aid in the ASTRO 25 IV&D system
- Troubleshoot Digital Mutual Aid and Analog Mutual Aid in the ASTRO 25 IV&D system

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)

Required:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
ACS78210

ASTRO® 25 IV&D ENHANCED TELEPHONE INTERCONNECT

COURSE OVERVIEW
This web based course describes the functionality and the hardware and software associated with the Enhanced Telephone Interconnect feature in the ASTRO® 25 IV&D System.

AUDIENCE
System Technicians, System Administrators

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Identify the function and major components for the Enhanced Telephone Interconnect feature
- Define the operation of the Enhanced Telephone Interconnect feature within the system
- Configure the Enhanced Telephone Interconnect equipment
- Troubleshoot the Enhanced Telephone Interconnect equipment

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)

ONLINE, SELF-PACED
LENGTH: **2 HOURS**
LMS COURSE CODE:
ACS715480

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

ASTRO® 25 IV&D INFORMATION ASSURANCE SYSTEM

COURSE OVERVIEW
This web based course describes the functionality and the hardware and software associated CNI Network Security in the ASTRO® 25 IV&D System.

AUDIENCE
System Administrators, System Technicians, Field Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Define network security and its functions
- List the network security components of an ASTRO 25 IV&D system
- Define the functions, components and operation of the Core Server Management Server (CSMS)
- Identify the functions, components and operation of the Interface Barrier (NIB)
- Identify the functions, components and operation of the border router and the peripheral network router

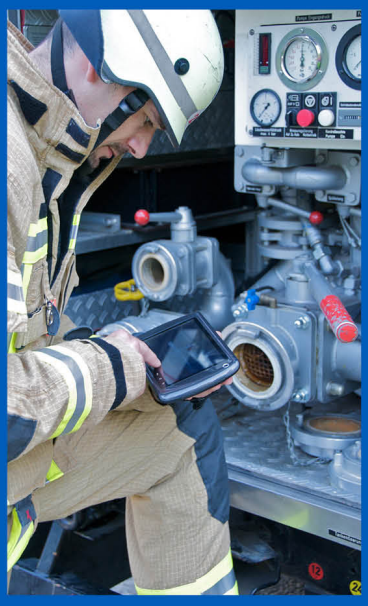
REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap for ASTRO 25 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO 25 Systems Applied Networking (NWT003)

Required:
Take one of the following, depending on system supporting:
- ASTRO 25 IV&D with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Conventional with M Core System Overview (ACS715420)
- ASTRO 25 IV&D Trunking with L Core System Overview (ACS715430)
- ASTRO 25 IV&D Conventional with K Core System Overview (ACS715400)

ONLINE, SELF-PACED
LENGTH: **4 HOURS**
LMS COURSE CODE:
ACS715211

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

HELPING PEOPLE BE THEIR BEST IN THE MOMENTS THAT MATTER



DISPATCH CONSOLE PORTFOLIO

OPERATIONAL COMMAND AND CONTROL FROM MULTIPLE POINTS, AT MULTIPLE LEVELS

MCC 7100

MCC 7500

CONSOLE COURSES

MCC 7000 SERIES DISPATCH CONSOLES OVERVIEW (CON014)	45
MCC 7000 SERIES DISPATCH CONSOLES WORKSHOP (CON012)	45
MCC 5500 DISPATCH CONSOLE (CON007)	45
MIP 5000 INSTALLATION AND MAINTENANCE (CON013-V)	46
ASTRO® 25 NICE LOGGER INTEGRATION (AST1002)	46
DOMAIN CONTROLLER ADMINISTRATION (AST2015) NEW	46

*** PLEASE NOTE:**

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

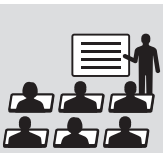
THE LEARNING MANAGEMENT SYSTEM (LMS)

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

CONSOLES TECHNICAL TRAINING CURRICULUM

MCC 7000 SERIES DISPATCH CONSOLES OVERVIEW

CON014 ONLINE SELF-PACED



MCC 7000 SERIES DISPATCH CONSOLES WORKSHOP

INSTRUCTOR-LED 4.5 DAYS

LMS COURSE CODE:
CON012

CURRICULUM COMPLETE

PARTICIPANT CAN MAINTAIN A MCC 7000 DISPATCH CONSOLE SITE INCLUDING: CONSOLE PC, VPM, CC GW'S AND AUX I/O SERVERS.
*PARTICIPANT PERFORMS TROUBLESHOOTING AND REPLACEMENT OF SITE DEVICES DURING COURSE.

OPTIONAL CONSOLE TRAINING

ASTRO® 25 NICE LOGGER INTEGRATION

INSTRUCTOR-LED
4.5 DAYS

AST1002

ASTRO 25 DOMAIN CONTROLLER ADMINISTRATION

INSTRUCTOR-LED
4 DAYS

AST2015

MCC 7000 SERIES DISPATCH CONSOLES OVERVIEW

COURSE OVERVIEW
This course provides an overview of the MCC 7000 series of dispatch consoles which consist of the MCC 7100 and MCC 7500 Dispatch Console. It includes a: description of the features, illustrations of subsystem architecture options, descriptions of subsystem components and illustrations of signal flow and call processing.

AUDIENCE
System Administrators, Console Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the features of MCC 7000 series of Dispatch Consoles
- Explain the various system architectures for Dispatch Console subsystems
- Describe system components in a Dispatch Console subsystem
- Describe the steps in the signal flow of call processing from a Dispatch Console

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Bridging the Knowledge Gap (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Systems Applied Networking (NWT003)

Required:
- System Overview for ASTRO 25 IV&D with M Core (ACS715200)
- ASTRO 25 IV&D Introduction to Radio System Management Applications (ACS716201)

ONLINE, SELF-PACED
LENGTH: **1 HOUR**
LMS COURSE CODE:
CON014

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 (ACT100-E or ACT101-E)
- Networking Essentials in Communication Equipment (NST762)
- ASTRO® 25 Systems Applied Networking (NWT003)

Required:
- System Overview for ASTRO 25 IV&D with M Core (ACS715200)
- ASTRO 25 IV&D Introduction to Radio System Management Applications (ACS716201)
- MCC 7000 Series Dispatch Consoles Overview (CON014)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
CON012

MCC 5500 DISPATCH CONSOLE

COURSE OVERVIEW
This course familiarizes technicians in troubleshooting/ repair functions, operating procedures, and hardware/ software applications for the MCC 5500 console. This course will provide all of the technical information required to configure, program, align, optimize, calibrate and repair the MCC 5500 console based on the recommended service level.

AUDIENCE
Console Technicians, System Managers

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Calculate hardware required for a MCC 5500 installation
- Install and configure all of the relevant hardware
- Test, troubleshoot and configure the main hardware components
- Build, modify, load and troubleshoot a system database

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- Experience using common communication test equipment
- Knowledge of basic two-way FM communications theory and logic circuits or completion of: Communication Systems Concepts (NST021)

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
CON007

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

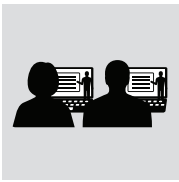
MIP 5000 INSTALLATION AND MAINTENANCE

COURSE OVERVIEW
The goal of the MIP 5000 Installation and Maintenance training is to teach participants how to correctly install and maintain a MIP 5000 console in the field.

AUDIENCE
Console Technicians, System Managers

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain what the MIP 5000 does
- Describe the System Architecture
- Describe the Distributed Call Processing Module (DCPM)
- Explain the purpose of the Discovery Form
- Properly Install a MIP 5000 Console
- Properly Configure a MIP 5000 Console
- Describe the purpose of the DCPM Service Manager
- List common troubleshooting problems and their solutions

REQUISITE KNOWLEDGE
None



VIRTUAL CLASSROOM
LENGTH: **(5) 2-HOUR SESSIONS**
LMS COURSE CODE:
CON013-V

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 Trunked System Overview (ACS715200)
- MCC 7000 Series Dispatch Console Workshop (CON012)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
AST1002

ASTRO® 25 DOMAIN CONTROLLER ADMINISTRATION

NEW

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 Organizational 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 with M Core System Overview (ACS715200)
- ASTRO 25 IV&D Conventional with M Core Overview (ACS715420)
- ASTRO 25 IV&D with L Core System Overview (ACS715430)

INSTRUCTOR-LED
LENGTH: **4 DAYS**
LMS COURSE CODE:
AST2015

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

SUBSCRIBER COURSES

CPS PROGRAMMING AND TEMPLATE BUILDING (ADT001-V)	50
APX™ CPS PROGRAMMING AND TEMPLATE BUILDING (APX7001-V)	50
APX RADIO MANAGEMENT WORKSHOP (RDS2017) NEW	50
XTS™/XTL TECHNICAL SUBSCRIBER ACADEMY (ADST005)	51
APX TECHNICAL SUBSCRIBER ACADEMY (APX010)	52

THE APX RADIO TECHNICAL ACADEMY AND THE XTS/XTL RADIO TECHNICAL ACADEMY

These "academy" style technical training courses are designed to provide technicians handling install, configuration, maintenance and troubleshooting support on APX or XTS/XTL subscribers, with a broader and deeper view of the APX radio and XTS/XTL radio. In addition to focusing on the capability, function and features of the APX and XTS/XTL radios as well as the detailed theory of operation of those radios, these academies will continue to focus on the correct procedures used to complete radio performance checks, radio alignment, maintenance and troubleshooting. They will also highlight other useful skills. These radio academies will include lecture and lab work on topics such as: Radio Flashing, Encryption (including configuring radios for OTAR), Programming Over P25 (POP 25), Advanced System Key Management, Vacuum and Submersibility testing, Mobile radio installation, Multiple Control Head configuration and many other special setup or configuration modes.

NOTE: As new APX models are released, they will be addressed during the APX Academy training. This approach provides technicians the expertise they need to work on the whole family of radios.

XTS™/XTL SUBSCRIBER FAMILY

DO YOU HAVE CPS PROGRAMMING EXPERIENCE?

NO

YES

CPS PROGRAMMING AND TEMPLATE BUILDING
ADT001-T

CPS PROGRAMMING AND TEMPLATE BUILDING
ADT001-V VIRTUAL CLASSROOM (5) 2-HOUR SESSIONS

XTS/XTL TECHNICAL SUBSCRIBER ACADEMY

INSTRUCTOR-LED 4.5 DAYS

LMS COURSE CODE:
ADST005

CURRICULUM COMPLETE

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

APX™ SUBSCRIBER FAMILY

APX CPS PROGRAMMING AND TEMPLATE BUILDING

APX7001-V VIRTUAL CLASSROOM (5) 2.5-HOUR SESSIONS

APX TECHNICAL SUBSCRIBER ACADEMY

INSTRUCTOR-LED 4.5 DAYS

LMS COURSE CODE:
APX010

CURRICULUM COMPLETE

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

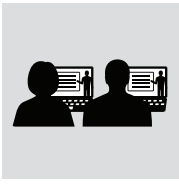
CPS PROGRAMMING AND TEMPLATE BUILDING

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



VIRTUAL CLASSROOM
LENGTH: **(5) 2-HOUR SESSIONS**
LMS COURSE CODE:
ADT001-V

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

VIRTUAL CLASSROOM
LENGTH: **(5) 2.5-HOUR SESSIONS**
LMS COURSE CODE:
APX7001-V

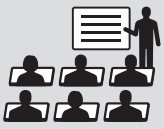
APX™ RADIO MANAGEMENT WORKSHOP NEW

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 optimize Radio Management Performance

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- APX CPS Programming and Template Building (APX7001-V)



INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
RDS2017

CLICK HERE TO VIEW THE **SCHEDULE AND PRICE SHEET**

XTS™/XTL TECHNICAL SUBSCRIBER ACADEMY

COURSE OVERVIEW

Participants will learn the capabilities, features and functions of the XTS™/XTL 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 the detailed theory of operation. The XTS/XTL Academy will also cover in detail: Radio Flashing, Encryption, Key Loading (Including configuring the XTS/XTL radio for OTAR), Programming over P25 (Over the Air Programming), Advanced System Key Management, Vacuum and Submersibility Testing, Mobile Radio Installation and many other special setup or configuration modes with the radios. 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 all models within the XTS/XTL family of radios, including: XTS 5000, XTS 2500 and XTS 1500 and XTL 5000, XTL 2500 and XTL 1500.

AUDIENCE

Radio Technicians

COURSE OBJECTIVES

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

- Distinguish between the features and specifications of the XTS and XTL 5000 radios
- Verify the correct operations of the XTS and XTL 5000 radios by completing Performance Checks and Alignment procedures
- Maintain and troubleshoot an XTS and XTL 5000 radios
- Disassemble and reassemble the radios using the documented procedures
- Verify the housing integrity of an XTS 5000R portable radio
- Flash upgrade an XTS and an XTL 5000 Radio
- 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)
- Radio Systems Overview (RCS002-E)
- Theory of Radio Operations (RCS003-E)

AND

- CPS Programming and Template Building Overview (ADT001-V)

OR

- Test Out CPS Programming and Template Building (ADT001-T)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
ADST005

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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)
- Radio Systems Overview (RCS002-E)
- Theory of Radio Operations (RCS003-E)

Required:

- APX CPS Programming and Template Building (APX7001-V)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
APX010

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

MOTOTRBO™ SYSTEMS PORTFOLIO

CONVENTIONAL	IP SITE CONNECT	CAPACITY PLUS	LINKED CAPACITY PLUS	CONNECT PLUS
NO TRUNKING	NO TRUNKING	DYNAMIC TRUNKING	DYNAMIC TRUNKING	FULL TRUNKING
SINGLE SITE	UP TO 15 SITES	SINGLE SITE	UP TO 15 SITES	UP TO 250 SITES

MOTOTRBO™ COURSES

MOTOTRBO™ CONNECT PLUS SYSTEM ACADEMY (PCT3003) NEW	57
MOTOTRBO SYSTEM ACADEMY (PCT3002) NEW	58
MOTOTRBO SUBSCRIBER AND REPEATER TECHNICAL SERVICE ACADEMY (TBO300)	58
MOTOTRBO SYSTEMS APPLIED NETWORKING (PCT2007) NEW	59
MOTOTRBO SYSTEM INTRODUCTION FOR TECHNICIANS (CEDMEL2000)	59
MOTOTRBO DESIGN AND DEPLOY FOR IP SITE CONNECT (AEL2600)	60
MOTOTRBO DESIGN AND DEPLOY FOR CAPACITY PLUS (CEDMEL2600)	61
MOTOTRBO DESIGN AND DEPLOY FOR LINKED CAPACITY PLUS (AEL2601)	62
MOTOTRBO DESIGN AND DEPLOY FOR CONNECT PLUS (AEL3601)	63

THE LEARNING MANAGEMENT SYSTEM (LMS)

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

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

For general information contact the North America Learning Help Desk at:
(800) 247-2346, option 4 or **training.na@motorolasolutions.com**

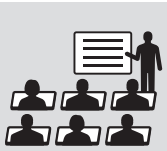
MOTOTRBO™ TECHNICAL TRAINING CURRICULUM
BASED ON YOUR CURRENT IP AND MOTOTRBO EXPERIENCE

DO YOU UNDERSTAND IP?

NO

NETWORKING OVERVIEW
NWT001-E ONLINE SELF-PACED

YES



MOTOTRBO SYSTEMS APPLIED NETWORKING
INSTRUCTOR-LED 3.5 DAYS
LMS COURSE CODE:
PCT2007

DO YOU HAVE MOTOTRBO EXPERIENCE?

NO

MOTOTRBO SYSTEM INTRODUCTION FOR TECHNICIANS
CEDMEL2000 VIRTUAL CLASSROOM (5) 2.5-HOUR SESSIONS

YES

CHOOSE YOUR SPECIALIZED SYSTEM TRAINING

CONNECT PLUS
MOTOTRBO DESIGN AND DEPLOY FOR CONNECT PLUS
VIRTUAL CLASSROOM
(5) 3.5-HOUR SESSIONS
AEL3601

COMPLETE ALL THREE COURSES

IP SITE CONNECT
MOTOTRBO DESIGN AND DEPLOY FOR IP SITE CONNECT
VIRTUAL CLASSROOM
(1) 4-HOUR SESSION
AEL2600

CAPACITY PLUS
MOTOTRBO DESIGN AND DEPLOY FOR CAPACITY PLUS
VIRTUAL CLASSROOM
(1) 3.5-HOUR SESSION
CEDMEL2600

LINKED CAPACITY PLUS
MOTOTRBO DESIGN AND DEPLOY FOR LINKED CAPACITY PLUS
VIRTUAL CLASSROOM
(1) 4-HOUR SESSION
AEL2601

MOTOTRBO CONNECT PLUS SYSTEM ACADEMY
INSTRUCTOR-LED 3.5 DAYS
LMS COURSE CODE:
PCT3003

MOTOTRBO SYSTEM ACADEMY
INSTRUCTOR-LED 3.5 DAYS
LMS COURSE CODE:
PCT3002

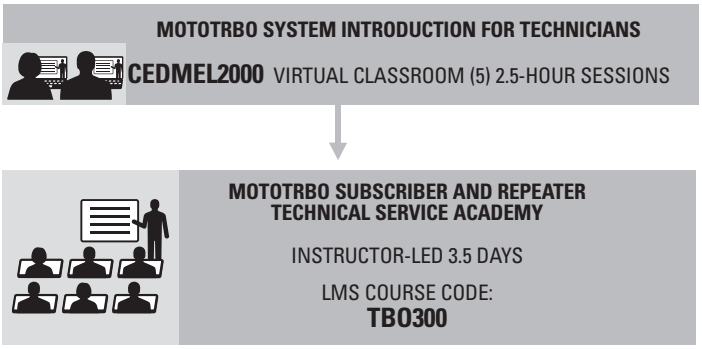
CURRICULUM COMPLETE

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.

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

For general information contact the North America Learning Help Desk at:
(800) 247-2346, option 4 or **training.na@motorolasolutions.com**

MOTOTRBO™ TECHNICAL TRAINING CURRICULUM
FOR SUBSCRIBER / REPEATER MAINTENANCE TECHNICIAN



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.

MOTOTRBO™ CONNECT PLUS SYSTEM ACADEMY

NEW

COURSE OVERVIEW

MOTOTRBO™ Connect Plus System Academy allows the participant to acquire in-depth experience planning, configuring and deploying MOTOTRBO Connect Plus Trunking systems in a hands-on laboratory environment.

This course reinforces and provides tangible context for individuals who have completed the virtual instructor-led MOTOTORBO Design and Deploy course and who wish to master the key elements of the MOTOTRBO Connect Plus Digital Radio system. In addition to lecture and demonstration of Connect Plus operational theory, this course includes a series of hands-on laboratory experiences. Labs address the key aspects of Connect Plus deployment and operation such as radio configuration, network configuration, controller configuration, system backup, user creation and maintenance, user site steering, over the air file transfer and troubleshooting.

AUDIENCE

System Administrators, System Technicians, Field Technicians, Support Personnel

COURSE OBJECTIVES

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

- Apply Connect Plus system theory and technical capabilities and features to real-world scenarios
- Create and implement functional programming templates for Connect Plus subscribers and repeaters
- Configure Connect Plus XRC site controllers for single and multi-site systems
- Configure Connect Plus XRT gateways for key applications such as MOTOTRBO Anywhere
- Configure site controller redundancy
- Determine bandwidth requirements for inter-site links using the Connect Plus System Planner
- Configure Auto-Fallback operation in subscribers and the site infrastructure
- Configure Emergency Calling and Emergency Alert operation
- Configure option board codeplugs for over the air delivery
- Perform over the air programming (OTAP) of key subscriber files such as the network frequency file, option board firmware and option board codeplugs
- Describe and configure Network Address Translation (NAT) in site routers that are representative of typical customer equipment
- Troubleshoot Connect Plus systems from the network, subscriber, and repeater perspectives

REQUISITE KNOWLEDGE

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

- MOTOTRBO System Introduction for Technicians (CEDMEL2000)
- MOTOTRBO Connect Plus Design and Deploy (AEL3601)

INSTRUCTOR-LED
LENGTH: **3.5 DAYS**
LMS COURSE CODE:
PCT3003

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

MOTOTRBO™ SYSTEM ACADEMY

NEW

COURSE OVERVIEW
This course allows the participant to acquire in-depth hands-on experience planning, configuring and deploying the following MOTOTRBO™ Systems and Solutions: Digital Conventional, IP Site Connect, Capacity Plus and Linked Capacity Plus.

NOTE: MOTOTRBO Connect Plus Systems are covered in a separate class, please reference course Design and Deploy for MOTOTRBO Connect Plus (AEL3601) to learn how to plan, configure and deploy MOTOTRBO Connect Plus systems

AUDIENCE
System Administrators, System Technicians, Field Technicians

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Create and implement functional programming templates for example radio sites and systems that include:
- Digital Conventional simplex and repeater-based systems
- IP Site Connect multisite conventional systems
- Capacity Plus single-site trunked systems
- Linked Capacity Plus multisite trunked systems

Students will also receive instruction and/or hands-on experience with:
- Receiver voting topologies
- Integrating MOTOTRBO Anywhere
- Integrating Avtec Scout consoles

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- MOTOTRBO System Introduction for Technicians (CEDMEL2000)
- MOTOTRBO Design and Deploy for IP Site Connect (AEL2600)
- MOTOTRBO Design and Deploy for Capacity Plus (CEDMEL2600)
- MOTOTRBO Design and Deploy for Linked Capacity Plus (AEL2601)

INSTRUCTOR-LED
LENGTH: **3.5 DAYS**
LMS COURSE CODE:
PCT3002

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 all models within the MOTOTRBO family of radios and repeaters, including: XPR6550, XPR4550, XPR8400, XPR6350, and XPR4350
NOTE: The MTR 3000 Repeater is not covered in this course

AUDIENCE
RadioTechnicians

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
- Interpret the circuit theory of operation and use this information to isolate faults found at the board level

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

INSTRUCTOR-LED
LENGTH: **3.5 DAYS**
LMS COURSE CODE:
TBO300

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

MOTOTRBO™ SYSTEMS APPLIED NETWORKING

NEW

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

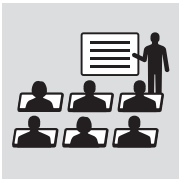
After completing this course, the student will be able to:

- 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 Communication Systems (NST762)



INSTRUCTOR-LED
LENGTH: **3.5 DAYS**
LMS COURSE CODE:
PCT2007

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

COURSE OVERVIEW

MOTOTRBO™ System Service Training introduces the theory of operation, key components and architectures of the MOTOTRBO Radio System. This course also considers various MOTOTRBO system applications, and examples of how to configure a MOTOTRBO system. Some of the topics include planning, fleetmapping, system design, programming, and deployment.

The goal of the MOTOTRBO Systems Introduction for Technicians is to give Professional-level Empower Certification seekers all the information they need to know about common MOTOTRBO features and capabilities, along with design and deploy principles common to all MOTOTRBO products. Upon completion of this course, individuals should be ready to take the more advanced Design and Deploy courses for IP Site Connect, Capacity Plus, 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 MOTOTRBO system capabilities and system components, radio portfolio features, and data applications capabilities for IP Site Connect, Capacity Plus, Linked Capacity Plus and Connect Plus
- Explain how to decide which system is better suited to customer needs
- Describe MOTOTRBO system topologies
- Describe MOTOTRBO analog to digital migration strategies
- Describe MOTOTRBO system design considerations for capacity planning, coverage planning, and other system functions.
- Plan and develop a MOTOTRBO fleetmap.
- Setup, install, and configure MOTOTRBO Customer Programming Software
- Operate MOTOTRBO radios with programmed features as planned in fleetmapping
- List the steps of the system design process.
- List common deployment considerations

REQUISITE KNOWLEDGE

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

- Basic understanding of radio communication fundamentals
- Knowledge of basic two-way FM and digital communications theory

VIRTUAL CLASSROOM
LENGTH: **(5) 2.5-HOUR SESSIONS**
LMS COURSE CODE:
CEDMEL2000

CLICK HERE TO VIEW THE **SCHEDULE AND PRICE SHEET**

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

Anyone who will sell, design, configure, deploy, or maintain a MOTOTRBO IP Site Connect Digital Radio System. 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 MOTOTRBO IP Site Connect system, its capabilities, system components, and data application capabilities
- Describe the MOTOTRBO IP Site Connect theory of operation
- Identify the available MOTOTRBO IP Site Connect topologies
- Configure an IP Site Connect system using MOTOTRBO CPS to program the subscribers and repeaters
- Design an IP Site Connect system, given a sample case study
- Explain the pre-deployment steps for IP Site Connect
- Explain the deployment steps for IP Site Connect

REQUISITE KNOWLEDGE

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

- Basic understanding of radio communication fundamentals
- Knowledge of basic two-way FM and digital communications theory
- Understanding of MOTOTRBO theory of operation
- Knowledge of basic IP networking theory

Required:

- MOTOTRBO System Introduction for Technicians (CEDMEL2000)

VIRTUAL CLASSROOM

LENGTH: **(1) 4-HOUR SESSION**

LMS COURSE CODE:
AEL2600

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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 capabilities. Participants will also be able to describe various MOTOTRBO Capacity Plus system topologies. Participants 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

Anyone who will sell, design, configure, deploy, or maintain a MOTOTRBO Capacity Plus Digital Radio System. 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 MOTOTRBO Capacity Plus system, its capabilities, system components, and data application capabilities
- Describe the MOTOTRBO Capacity Plus theory of operation
- Identify the available MOTOTRBO Capacity Plus topologies
- Configure a Capacity Plus system using MOTOTRBO CPS to program the subscribers and repeaters
- Design a Capacity Plus system, given a sample case study
- Explain the pre-deployment steps for Capacity Plus
- Explain the deployment steps for Capacity Plus

REQUISITE KNOWLEDGE

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

- Basic understanding of radio communication fundamentals
- Knowledge of basic two-way FM and digital communications theory
- Understanding of MOTOTRBO theory of operation
- Knowledge of basic IP networking theory

Required:

- MOTOTRBO System Introduction for Technicians (CEDMEL2000)

VIRTUAL CLASSROOM

LENGTH: **(1) 3.5-HOUR SESSION**

LMS COURSE CODE:
CEDMEL2600

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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 capabilities. Participants will also be able to describe the MOTOTRBO Linked Capacity Plus system topology. Participants 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. This course was designed for individuals who already have a good understanding of MOTOTRBO Capacity Plus Systems, but who want to now focus on Linked Capacity Plus

AUDIENCE

Anyone who will sell, design, configure, deploy, or maintain a MOTOTRBO Linked Capacity Plus Multi Site Digital Radio System. 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 MOTOTRBO Linked Capacity Plus system, its capabilities, system components, and data capabilities
- Describe the MOTOTRBO Linked Capacity Plus theory of operation
- Identify the available MOTOTRBO Linked Capacity Plus networking topology
- Configure a Linked Capacity Plus system using MOTOTRBO CPS to program both MOTOTRBO radios and MOTOTRBO repeaters
- Design a Linked Capacity Plus system, given specific parameters and details
- Deploy a Linked Capacity Plus system based on the system designed earlier

REQUISITE KNOWLEDGE

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

- Basic understanding of radio communication fundamentals
- Knowledge of basic two-way FM and digital communications theory
- Understanding of MOTOTRBO theory of operation
- Knowledge of basic IP networking theory

Required:

- MOTOTRBO System Introduction for Technicians (CEDMEL2000)
- MOTOTRBO Design and Deploy for IP Site Connect (AEL2600)
- MOTOTRBO Design and Deploy for Capacity Plus (CEDMEL2600)

VIRTUAL CLASSROOM
LENGTH: **(1) 4-HOUR SESSION**
LMS COURSE CODE:
AEL2601

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

MOTOTRBO™ DESIGN AND DEPLOY FOR CONNECT PLUS

COURSE OVERVIEW

MOTOTRBO™ Connect Plus Design and Deploy introduces the key components and architectures of a MOTOTRBO Connect Plus Digital Radio system. Participants will be able to describe the MOTOTRBO Connect Plus system, its capabilities, system components, site and system management, troubleshooting and 3rd Party Data Applications considerations. Participants will also be able to describe various MOTOTRBO Connect Plus system topologies. Participants will learn what is involved with designing and deploying a MOTOTRBO Connect Plus radio system, as well as what is needed to effectively manage the system. This course will also cover how to configure a MOTOTRBO Connect Plus system using MOTOTRBO Customer Programming Software, MOTOTRBO Connect Plus Option Board CPS and the MOTOTRBO Connect Plus Network Manager Application. This course was designed for individuals who already have a good understanding of MOTOTRBO systems, but who want to now focus on MOTOTRBO Connect Plus.

AUDIENCE

Anyone who will sell, design, configure, deploy, or maintain a MOTOTRBO Connect Plus Digital Radio - Single or Multi-Site System. 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 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:

- Basic understanding of radio communication fundamentals
- Knowledge of basic two-way FM and digital communications theory
- Understanding of MOTOTRBO theory of operation
- Knowledge of basic IP networking theory

Required:

- MOTOTRBO System Introduction for Technicians (CEDMEL2000)

VIRTUAL CLASSROOM

LENGTH: **(5) 3.5-HOUR SESSIONS**

LMS COURSE CODE:
AEL3601

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

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

COVERAGE WITHOUT COMPROMISE

Public Safety LTE networks handle peak usage and prioritize system traffic to the end of coverage. Extend network coverage during disaster recovery situations and optimize 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

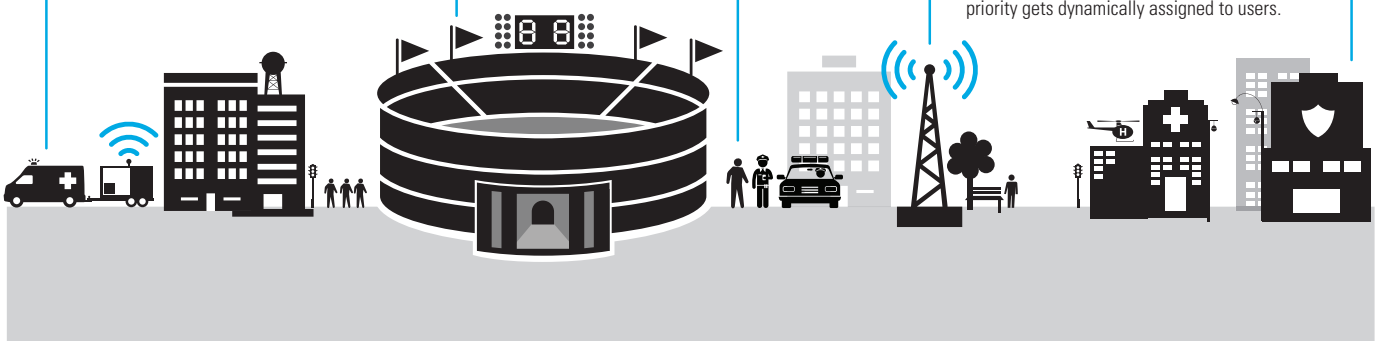
When public safety personnel have a unified picture of what's unfolding, they are better equipped to respond. High-speed data, location information, photos and streaming video can significantly improve collaboration and outcomes.

COST SAVINGS ON A LARGE SCALE

An optimized Public Safety LTE network that saves money via economies of scale on devices and infrastructure partnership where needed.

CONTROL OF YOUR COMMUNICATIONS

An optimized 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

PUBLIC SAFETY LTE SYSTEM OVERVIEW (AAE1603)	NEW	66
PUBLIC SAFETY LTE ARCHITECTURE AND SIGNALING (LTE2005)	NEW	66
PUBLIC SAFETY LTE SYSTEM ADMINISTRATION (LTE2006)	NEW	66
PUBLIC SAFETY LTE APPLIED NETWORKING (LTE2007)	NEW	67

THE LEARNING MANAGEMENT SYSTEM (LMS)

To register for a course, go to learning.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 a 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

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 end-to-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 Communicatons Equipment (NST762)

INSTRUCTOR-LED
LENGTH: **4.5 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 Managers, Customer Technical Staff

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Understand the function and capabilities of the OSP Platform
- Customize the OSP Interface
- Provision and manage devices on the PS-LTE network
- Detect and respond to faults in the PS-LTE network
- Utilize network monitoring tools available on the OSP platform
- Manage performance of the PS-LTE network

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- IP Fundamentals (AEE1301)
- Public Safety LTE System Overview (AAE1603)

INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
LTE2006

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

PUBLIC SAFETY LTE APPLIED NETWORKING

COURSE OVERVIEW

The Public Safety LTE Applied Networking course covers the operation and maintenance of Motorola-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

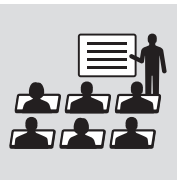
After completing this course, the student will be able to:

- 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 Communicatons Equipment (NST762)



INSTRUCTOR-LED
LENGTH: **4.5 DAYS**
LMS COURSE CODE:
LTE2007

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

OTHER COURSES

MOSCAD™ NFM PROGRAMMING, MAINTENANCE AND OPERATOR (FXD010) 69

THE LEARNING MANAGEMENT SYSTEM (LMS)

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

MOSCAD™ NFM PROGRAMMING, MAINTENANCE AND OPERATOR

COURSE OVERVIEW

The MOSCAD™ Network Fault Management (NFM) course covers the programming, maintenance and operation of the:

- Site Device Manager Unit (SDM)3000 Remote Terminal Unit (RTU)
- NFM/NFM XC Remote Terminal Unit (RTU)
- SDM3000 Network Translator (SNT)
- IP Gateway
- Graphic Master Computer (GMC)

The course focuses on a detailed discussion of the different types of Network Fault Management systems, SDM3000 RTU hardware, hands-on activities with programming the RTU's, Attach Site Builder Applications for Tag Generation, Generating Tags and Files, navigating with the web browser features and the Graphic Master Computer.

AUDIENCE

System Managers, Service Technicians, Motorola Service Center, End Users

COURSE OBJECTIVES

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

- Install NFM SDM3000 builder software on students' laptops
- Install NFM software on students' laptops
- Configure alarm points using SDM3000 builder
- Configure alarm points using Site Builder
- Generate Tags and Files to import alarm tags
- Use SDM Builder to Generate Tags and Files to import alarm tags
- Navigate and acknowledge alarms at the Graphic Master Computer
- Utilize the web browser features to view and configure the system
- Create Custom Tabs
- Create Custom Maps
- Describe basic planning requirements and complete a simple Fleetmap information template.
- Complete worksheets required to create a Fleetmap based on sample operational requirement information.
- Utilize the web browser features to view and configure the system
- Create Custom Tabs
- Create Custom Maps
- 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

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

- Basic understanding of Windows navigation
- Laptop computer with Windows XP or newer
- Windows program files must be on the "C" directory

INSTRUCTOR-LED
LENGTH: **3 DAYS**
LMS COURSE CODE:
FXD010

CLICK HERE TO VIEW THE
SCHEDULE AND PRICE SHEET

NEW SOLUTIONS TRAINING

WAVE SOLUTIONS TRAINING

EVERY DEVICE, EVERY NETWORK, EVERY TEAM, CONNECTED LIKE NEVER BEFORE

USE THE DEVICES YOU ALREADY HAVE AND THE NETWORKS YOU ALREADY SUBSCRIBE TO AND PTT WITH OTHER TEAMS AND INDIVIDUALS BOTH INSIDE AND OUTSIDE OF YOUR COMMUNICATION SYSTEM.

- **WAVE 3000 TECHNICAL ENABLEMENT (RDS2006)**
- **WAVE CERTIFIED INTEGRATION ENGINEERING (AST3001)**
- **WAVE 5000 ASTRO INTEGRATION**
- **WAVE 5000 ADMINISTRATOR**
- **WAVE 5000 END USER**

COMMANDCENTRAL SOLUTIONS TRAINING

PUBLIC SAFETY WORKFLOWS FOR ENHANCED AGENCY OPERATIONS

HELPS YOU DETER CRIME AND IMPROVE OUTCOMES MORE EFFICIENTLY WITH CLOUD-BASED APPLICATIONS THAT ENHANCE PERFORMANCE THROUGHOUT YOUR AGENCY.

- **COMMANDCENTRAL AWARE ADMINISTRATOR**
- **COMMANDCENTRAL ADMINISTRATOR AWARE END USER**
- **COMMANDCENTRAL STREAMING (RTVI) ADMINISTRATOR**
- **COMMANDCENTRAL STREAMING (RTVI) END USER**

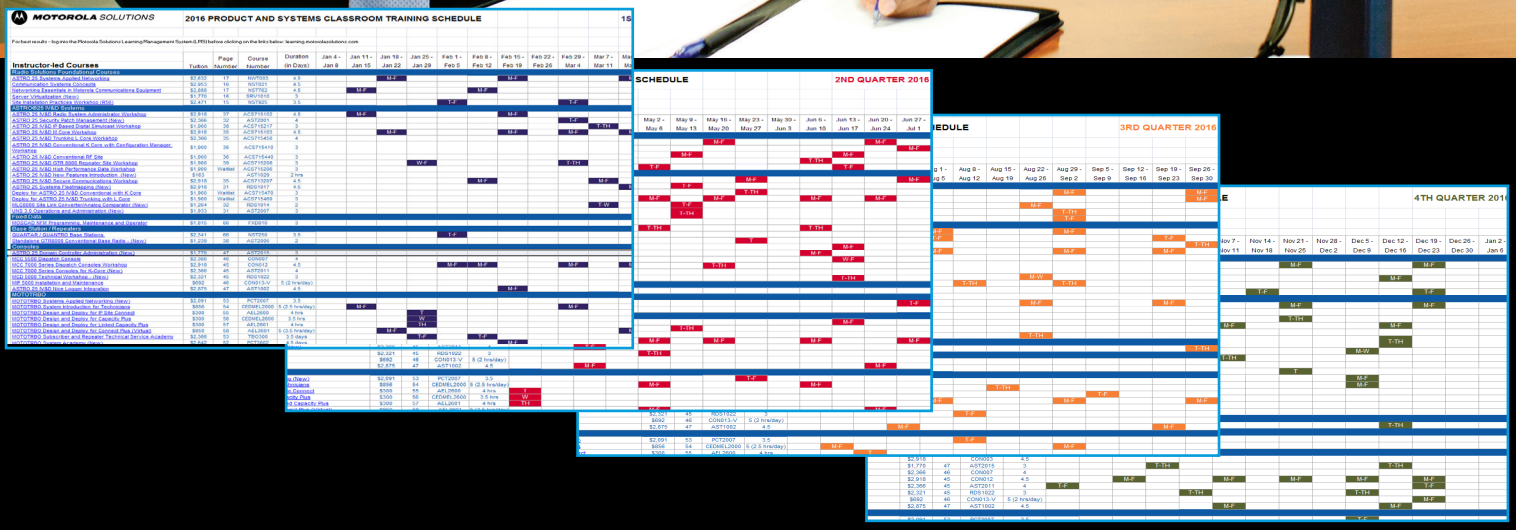
VIDEO SOLUTIONS TRAINING

- **VIDEO BASICS**
- **VIDEO INTERMEDIATE**

Go to the Learning Management System (LMS) to browse our current course offerings for our new solutions training.

Access the LMS at: learning.motorolasolutions.com

SCHEDULE AND PRICE SHEET



DOWNLOAD THE NORTH AMERICA TRAINING SCHEDULE AND PRICE SHEET

- **Easy to print:** Standalone file that is not part of this larger catalog.
- **Easier to use:** Each course is hyperlinked to it's sign-up page in the Learning Management System (LMS).
- **Updated frequently:** Download the latest version for the most current schedule and pricing.
- **6 pages total:** Pages 1-4 are for Instructor-led and Virtual Classroom courses, listed by quarter. Pages 5-6 are online courses.

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 (800) 247-2346, option 4.

Click on the above link to access the schedule and pricing file or visit: **motorolasolutions.com/nalearnschedule2016**

MOTOROLA SOLUTIONS

NORTH AMERICA LEARNING

CONTACT US

VISIT OUR NORTH AMERICA LEARNING WEBSITE:
MOTOROLASOLUTIONS.COM/LEARNING

Our website is your portal to finding the courses to meet your unique needs. Keep up to date with the latest North America training news and download videos and documents.

Find information on lodging and directions to the campus. Or use the "Contact Us" function for additional questions or assistance in customizing your training program.

Motorola Solutions, Inc.
North America Learning
1295 E. Algonquin Road - Door 75
Schaumburg, Illinois 60196 U.S.A.
(800) 247-2346, option 4

motorolasolutions.com/learning

MOTOROLA SOLUTIONS CAMPUS

Entry Door Guide by Building

- Building A - Doors 50 & 51
- Building B - Door 65
- Building C - Door 60
- Building D - Door 75
- Building E - Door 4
- Building F - Door 11
- Building G - Door 13
- Building H - Door 19
- Building I - Door 82

Campus visitors are reminded to obey posted traffic signs and to restrict their movement to designated areas of the campus.

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. ©2015-2016 Motorola Solutions, Inc. All rights reserved.

MOTOROLA