Product and system technical training course catalogue

Global Education. Europe, Middle East and Africa edition
December 2025

MOTOROLA SOLUTIONS

WELCOME

Day in, and day out, governments and businesses around the world rely on effortless and reliable communication. Our customers call it their lifeline. To help businesses operate without interruption and to safeguard communities, workplaces, and ultimately, each one of us, we are determined to help keep the lifeline unbreakable.

With Motorola Solutions, Inc. Global Education, we help your two biggest lifeline investments - your personnel and your technology infrastructure - work together efficiently to maximize the value of your communication technologies.

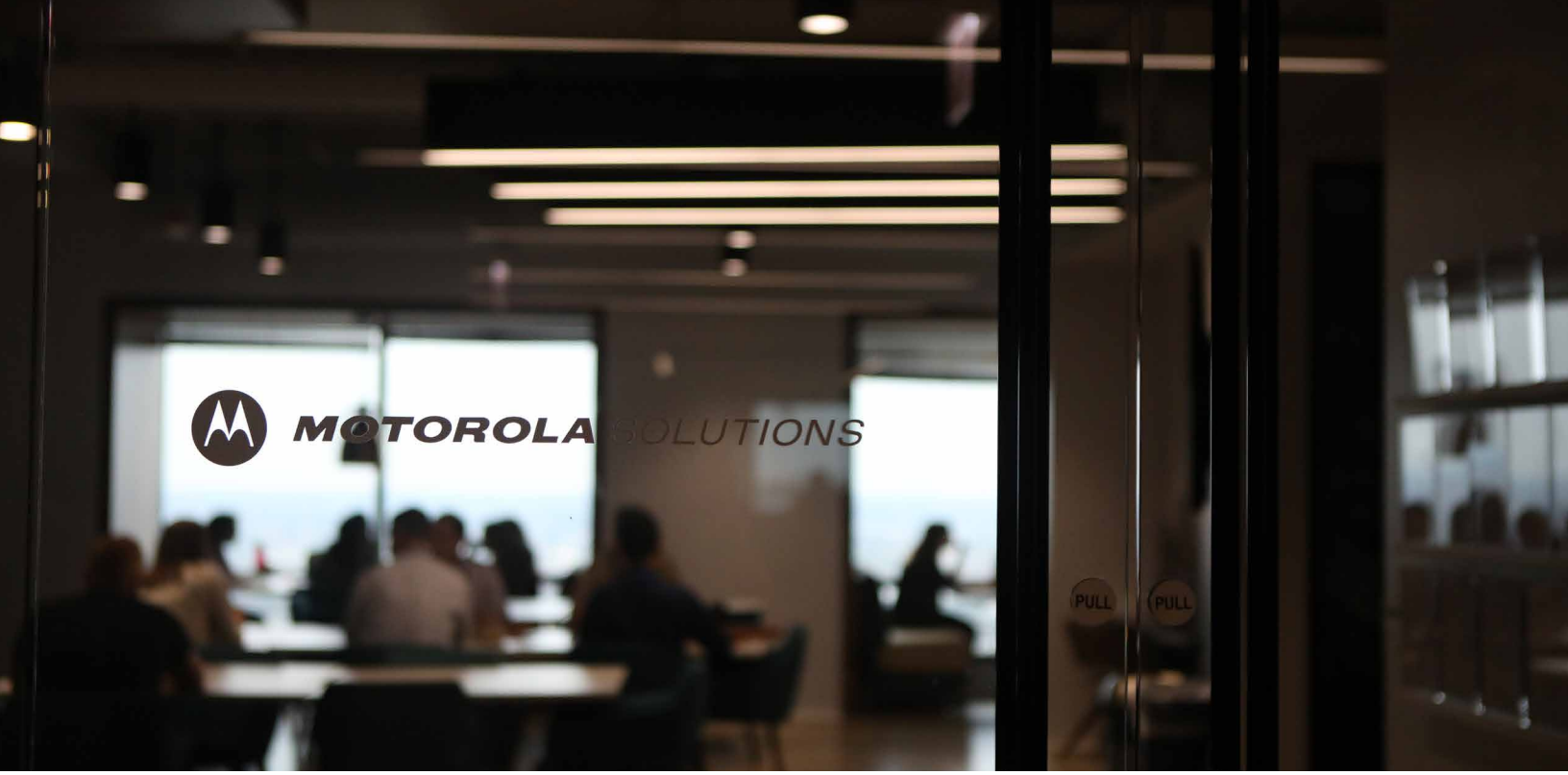
Whether your organization is new to our latest innovations or has years of experience with us, our Education Services team helps expand your personnel's skills and knowledge for the full application of your technology investment.

Starting with professionally developed, real-world application and content, we always design your training with the learner in mind. Our experienced instructors average 20+ years in the communications industry and specialize in Motorola Solutions technologies and services. Immersive, hands-on experiences, expert lab environments, or online learning ensure we meet your learners with the right kind of learning at the right times.

Whether training is delivered virtually, at your location or in our facilities, we can help ensure that your personnel know how to amplify your investment, maximize operational efficiency, and ensure an unbreakable lifeline.

We look forward to working with you.

MOTOROLA
SOLUTIONS



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TWO-WAY COMMUNICATIONS

EDUCATION SERVICES

Global Education teams up with you in the successful implementation, maintenance, and use of your communication system. We blend our passion for learning and innovation to deliver comprehensive training strategies, targeted to ensure technicians, administrators, supervisors, and operators find in us a trusted and effective learning partner.

Our range of services is designed to ensure you find the right learning support your organization's unique characteristics demand. From standard training paths to the most personalised service: a Training Need Analysis service followed by a tailored training plan, specifically designed to meet the results you want to achieve.

Our services not only respond to businesses and organizations' needs, but also to limitations uncertain times may bring. Our learning technology allows us to provide remote instructor-led training, so your personnel can attend our sessions from anywhere in the region.

Browse this catalogue to learn more about each of these services and their benefits, and also discover a selection of our extensive training portfolio. If you have any questions, contact your Motorola Solutions representative.

QUALITY ASSURANCE: THE TPMA FRAMEWORK

MOTOROLA SOLUTIONS GLOBAL EDUCATION COMMITS TO EXCELLENCE IN INSTRUCTOR-LED TRAINING

For 45+ years, our instructors continue to be laser-focused on your two lifeline investments - your personnel and your technology infrastructure. Our mission is to work together efficiently to maximize the value of your communication technologies.

Motorola Solutions is aware of the impact training experiences have on your team and your organization. When it comes to supporting the success of your employees and your technology infrastructure, we seek to continually deliver exceptional training to you.

For over 10 years, we have built and implemented the Training Performance Monitoring & Assessment (TPMA) framework in our organization. Our internal instructors are held to the highest level of training standards outlined within the Learning & Performance Institute (LPI). The TPMA certificate is widely-recognized and accepted as the premiere institute for learning, assessing and benchmarking trainer progress.

Anywhere in the world, those who hold a TPMA certificate demonstrate that they have reached or exceeded the highest standards demanded within the industry.

WHY DO TPMA CERTIFICATIONS MATTER?

Adopting TPMA standards is essential to meet industry trends and leading industry best practices to meet user needs, enhance instructor development and ultimately leads to a happy customer experience.

LPI ensures the quality of the instructors' training delivery is maintained and meets the highest quality standards, provides expert feedback on their performance and promotes the development of their facilitator skills.

Visit us at learningcenter.motorolasolutions.com to register for our training courses.

ACHIEVING OPTIMAL PERFORMANCE MATTERS TO US

- We focus on the needs of the learner, not the trainer
- The personalized approach and structured consistency of standardized requirements help win business

"The instructor did an outstanding job. Truly a professional and extremely knowledgeable. Never rushed and always listened. Provided feedback to all questions and allowed students to participate at their own level of expertise and speed."

"The Instructor was extremely helpful during the training. He has an excellent way of teaching and was very attentive to the students when asked questions. I liked that he went over each and every field of CPS. Excellent Instructor! I would recommend to anyone!"

"Exceptional course, no words to explain the instructor's commitment and professionalism. Vast experience, humbleness, patience and amazing teaching skills. A different and positive class."

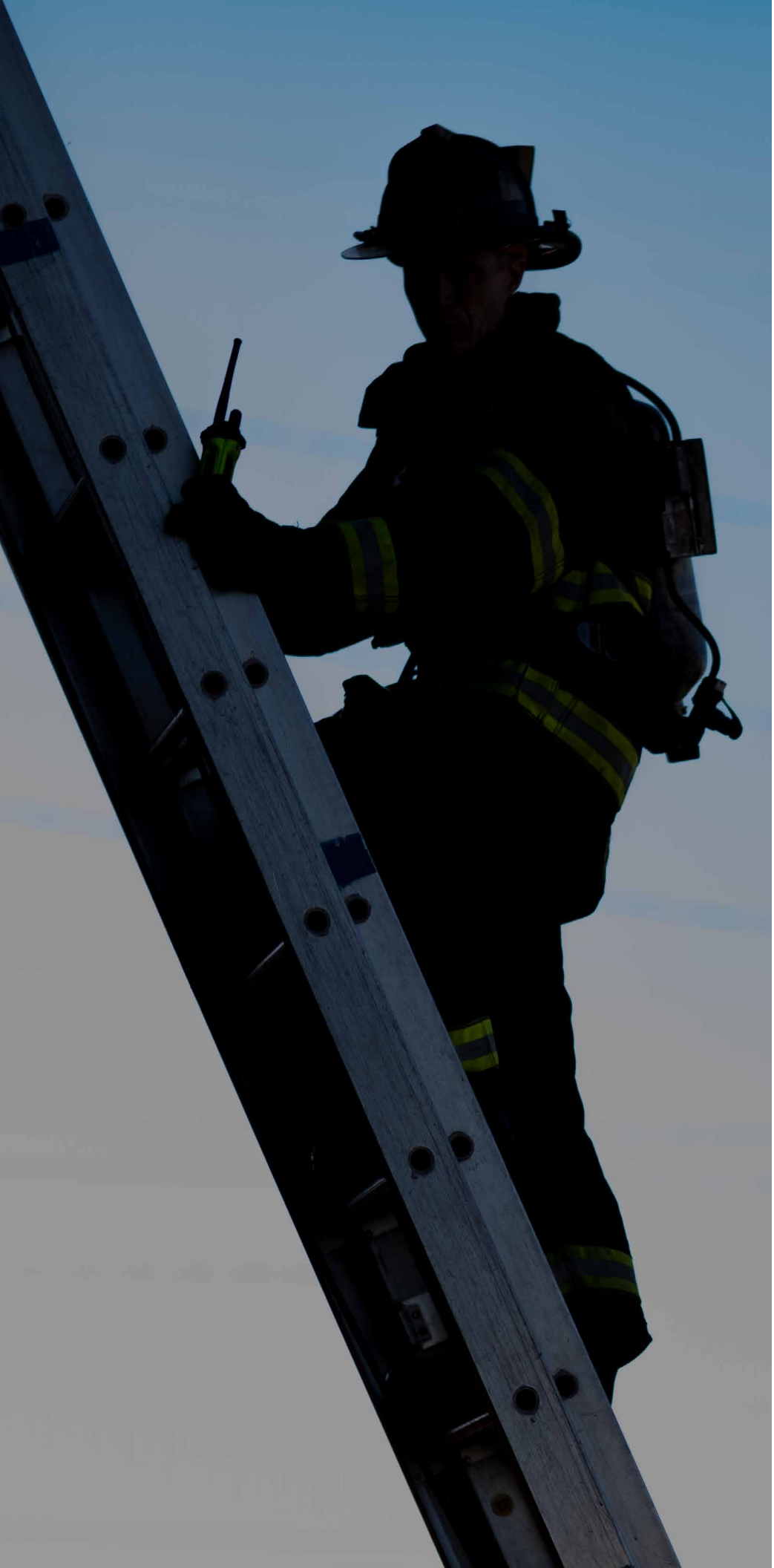
"Excellent coach. Direct, precise, detailed. Explain everything in the right way. Honestly, the best coach I have ever had. They do not skip anything, explain everything in detail. My knowledge after this training is much better. During the entire training, he was fully committed to us."

"The instructor showed outstanding skills to combine theory, practice, actual cases and hands-on training. Great training."

"The best teacher I have ever had in any previous training courses. Very challenging and interactive teaching helping me to understand the system from the bottom to top with a lot of additional slides from the teacher with extremely good and clear explanations in the system networking for deeper understanding."

"One of the best instructors I had. Speaks clearly, responsive to the students; actions and very good at making the students stay alert and attentive."

"Amazing training, very glad to join it. Amazing trainer, very vibrant, very knowledgeable trainer. Looking forward to more training with him. Good trainer from a good company."



OPERATOR TRAINING

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

Users of your mobile and portable radios require training on their units to understand its basic operation, features and functions.

Dispatchers of your consoles require training to understand basic operation, features and functions; management personnel require training on the Motorola Solutions applications.

TRAIN THE TRAINER

With this option, Motorola Solutions trains your qualified instructors so that they, in turn, can train each individual user in your organization. These classes are usually delivered on site using your equipment and our end-user training materials, that can be tailored if needed.

AUDIENCE

This course is geared for customers who have an experienced, dedicated training staff in their organization.

COURSE OVERVIEW

This course provides your training personnel knowledge and practice that will enable them to successfully train their students. It concentrates on specific product features and how it relates to the training process; students will become proficient in discussing common tasks associated with the operation of their radios and consoles, as identified in the training needs analysis.
Note: This course is presented as customer specific and will cover pertinent information on customer equipment.

RECOMMENDED PREREQUISITE

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 Solutions instructor. These classes are typically done on site using your equipment and our end-user training materials, that can be tailored if needed.

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 and a review of their radio's basic functionality. 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: End-user training materials are not sold as standalone products, they are part of our Train-the-Trainer or Operator training programmes.

COURSES FOR CONSOLE PRODUCTS

- MCC 7000 Series Dispatch Console Administrator Training
- MCC 7000 Series Dispatch Console Operator Training
- MCD 5000 Operator
- DCX9000 Workshop

COURSES FOR MOBILES & PORTABLES

- DIMETRA™ Series
- APX™ Series
- MOTOTRBO™ Series
- Customer Programming Software

TAILORED TRAINING: ANALYSIS AND CONSULTATION SERVICES

The variety of services we offer reflects our desire to make sure all our customers find the right training option for them. For those who demand fully personalized training support, and acknowledge the value consulting with experts brings, we are looking forward to partnering with you in the design, implementation, and evaluation of your product and solutions technical training strategy.

Our training consultants and technology experts will complete a thorough analysis of your infrastructure and the results your organization pursues, the challenges your team faces, the performance they aim to achieve, and the new capabilities they need to acquire.

The outcome of that analysis will be a tailored learning proposal, designed just for you and your particular circumstances and preferences. It will also be the route map for our instructors, and the point of reference for evaluations of learning, results, or expectations.

TRAINING OPTIONS

In this catalogue, you will find a selection of the more than 500 training resources that form our training portfolio, and a variety of learning methodologies.

Choosing the most suitable training delivery method depends on multiple factors, as organizational goals, learning objectives, or circumstances out of our control limiting our choices. Regardless of what those circumstances are, our purpose is to make sure you always find in our training offer a valid alternative to keep your personnel abreast.

LIVE TRAINING

It consists of scheduled sessions delivered either remotely or in a conventional classroom, but always led by a technical instructor.

In Motorola Solutions remote live training, the benefits of instructor-led sessions are moved to a virtual environment; thanks to the distance learning technologies we use and our remote labs, learners and instructors interact and collaborate in real time. Live discussions, demonstrations, and online activities happen in these remote sessions.

The same instructors also deliver training in traditional training facilities, and during those face-to-face sessions, they specially focus on hands-on training, allowing learners to immerse themselves in the subject, and practice in a safe environment.

Whether you are interested in one of these methods or a combination of them, either if our off-the-shelf courses meet your needs or you need them customised to suit your requirements, contact us now to start working together on your training strategy.

Open registration schedule

Click here to find the upcoming training sessions, open to all our customers.
Learn more about each class and book a seat using the link to the Training Center sign-up page provided.

SELF-PACED TRAINING

It allows your team to gain foundational knowledge on a variety of topics using their computer and at their own schedule. There are two main types of self-paced training:

- **Online courses**: a single piece of training, with defined objectives and estimated duration.
- **Microlearning**: a collection of brief components grouped into related topics.

We also have a wide offer of training you can take at your own pace. Click here to see the list of training resources that will allow you to gain foundational knowledge on a variety of topics and get ready for your instructor-led training session.

LEARNING CENTER

THE MOTOROLA SOLUTIONS LEARNING CENTER OFFERS A FAST, ENGAGING, AND INTUITIVE EXPERIENCE DESIGNED TO HELP YOU MAXIMIZE YOUR EXPERTISE WITH OUR SOLUTIONS.

GETTING STARTED

Access the Learning Center at https://learningcenter.motorolasolutions.com/ to create an account or retrieve your username/password (users from the previous Learning Management System have been migrated to the Learning Center).

Once logged in, use the **Search bar** for quick lookups by keywords, or apply advanced search filters to narrow your options. For a more guided approach, click **Browse content** and explore by category, drilling down into subcategories to refine your results.

When you find a course you like, click **Launch** for direct access; if a cost is associated, accept it to proceed. For live sessions, click See classes **to enroll** to find available dates and times based on your region, and expand details to view location, instructors, or deadlines. **Buy** your selection and proceed to checkout. After completing your purchase, your new training will appear in your plan.

KEY FEATURES

- Modern, intuitive user interface: enjoy a clean and accesible experience.
- Streamlined navigation: Access training with fewer clicks.
- Enhanced search capabilities: Benefit from greater predictability and ease of use.
- One-click course launching: Get started quickly with your learning.
- Curated Playlists: Discover informal, role-based, or skill-focused learning paths.
- Multi-language availability: Support for our global users ensures an inclusive learning experience.

GENERAL INFORMATION

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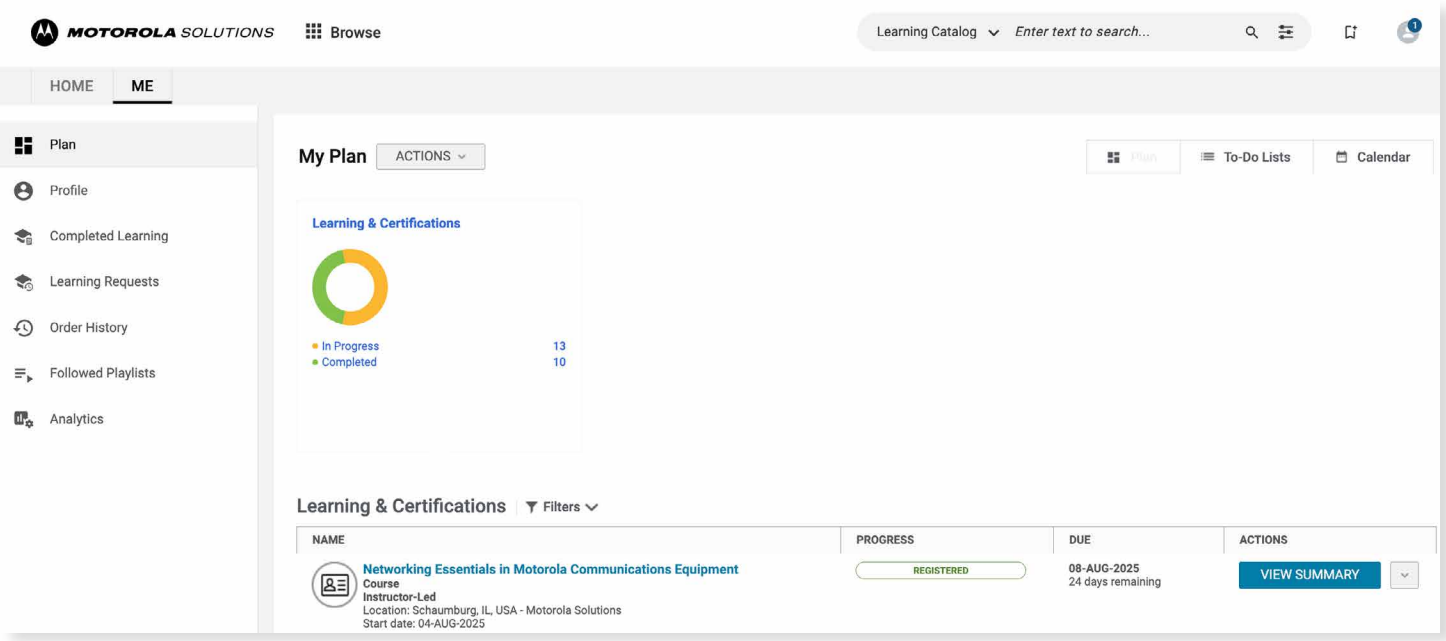
For general information contact the Europe, Middle East and Africa Education Services Help Desk at: training.emea@motorolasolutions.com



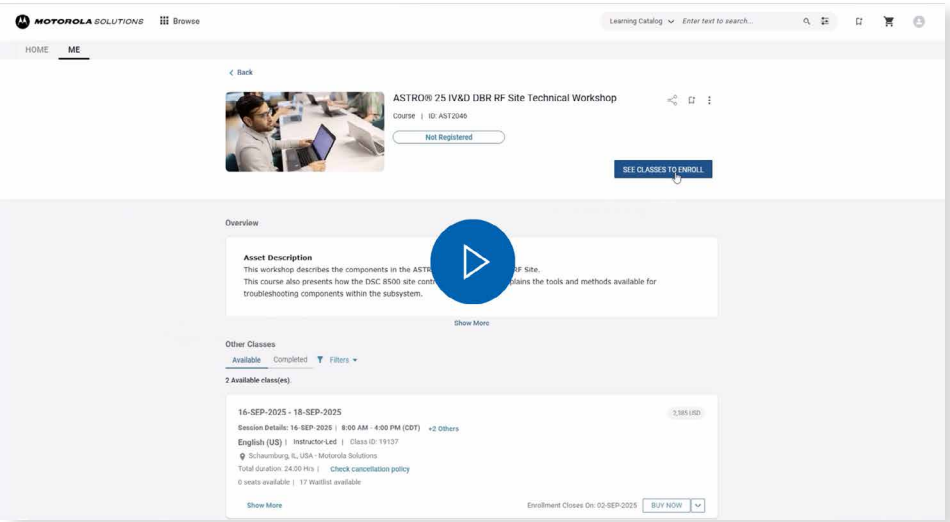
YOUR PERSONNAL DATA DASHBOARD

Access your personal space by clicking Me on the top navigation bar. Here you'll find:

There are several benefits to Training Banks including:

- **Plan**: View your enrollments and completions.
- **Profile**: Update your personal data.
- **Completed learning**: See a list of all content you've finished.
- **Learning requests**: Track your requested training and their statuses.
- **Order history**: Keep tabs on your purchases.
- **Followed playlists**: Quickly access your saved playlists.
- **Analytics**: Run reports on your learning activity.

HOW TO ENROL IN A COURSE



ADDITIONAL FEATURES

The system includes a dedicated **Calendar feature**, accessible via the Calendar button at the top of the **ME page** or through the profile menu on the top right corner. This allows you to easily view scheduled learning events, with options to view your personal events or the catalog calendar. Learning events are displayed on the calendar grid, and clicking on an event will show a pop-up with more details.

The **Message Center** serves as your central hub for communications within the system. Receive important messages, notifications, requests, and alerts related to your learning and system activity here.

Motorola Solutions Learning Center: Learn, grow, and thrive.

HELPFUL INFORMATION

HOW TO MAKE PAYMENTS WHEN ENROLLING IN A COURSE

For your convenience we accept the following methods of payment:

- Credit Card
- Purchase Order

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

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

FOR QUESTIONS AND ASSISTANCE

Call the Education Help Desk
Monday – Friday,
8h – 18h Central European Time
or email us at:
training.emea@motorolasolutions.com

Note: Invoices are available only when using Purchase Orders.

CONTACT MOTOROLA SOLUTIONS EUROPE, MIDDLE EAST AND AFRICA					
AUSTRIA (GERMAN)	0800 281 195	**NETHERLANDS (ENGLISH)**	0800 024 9893	**SWEDEN (ENGLISH)**	020 79 4489
DENMARK (ENGLISH)	80 253 546	**NORWAY (ENGLISH)**	800 148 02	**UKRAINE (UKRAINIAN)**	8000 3570 4387
FRANCE (FRENCH)	0800 914 532 (+33 176 775 609)	**POLAND (POLISH)**	00800 121 5772	**UNITED ARAB EMIRATES (ENGLISH)**	8000 3570 4387
GERMANY (GERMAN)	0800 724 6872 (+49 692 222 1568)	**SOUTH AFRICA (ENGLISH)**	0800 994 886	**UNITED KINGDOM (ENGLISH)**	0800 731 3496 (+44 207 019 0461)
ITALY (ITALIAN)	800 791 276	**SPAIN (SPANISH)**	900 941 684		
ISRAEL (HEBREW)	180 931 5818	**SAUDI ARABIA (ENGLISH)**	800 811 0523		

POLICIES AND REQUIREMENTS

CANCELLATION AND RESCHEDULING BY THE STUDENT

Registrants may cancel or reschedule a class no less than 30 days prior to the class start date. Cancellations received after the stated deadline will not be eligible for a refund.

CANCELLATION AND RESCHEDULING BY MOTOROLA SOLUTIONS

Motorola Solutions Training Services reserves the right to cancel any course due to low enrollment or other circumstances which would make the event non-viable up to 10 business days prior to the start of class.
If Motorola Solutions cancels a class, the registrants will be offered a full refund. Registrants will be notified at the time of change or cancellation with regards to the cancellation and refund process.

PROFESSIONALISM

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

LAPTOP REQUIREMENTS

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

TRAINING CONTENT AND STRATEGY DISCLAIMER

All of Motorola Solutions training classes are designed to support the Motorola Solutions Service strategy for each product. This strategy may include a combination of (but not limited to) processes, procedures, recommendations, and instructor experiential advice which may involve repair, replacement, and or recovery of hardware, software, or firmware of Motorola Solutions products.

The repair, replacement, or recovery of these products may vary from product to product. Motorola Solutions reserves the right to change the structure and content of all courses at any time.

MOTOROLA SOLUTIONS TECHNICAL TRAINING COURSES

The following pages contain a selection of the courses that form our extensive portfolio, and also roadmaps to let you know the starting point and milestones of your development.

COURSE INDEX

Use this matrix to quickly identify the targeted role and system life cycle phase of each course.

Portfolio	Course Code & Type	Course Title	Foundations	Product/System Intro	Stage & Deploy	Operate	Mantain	Administrator	Technician	End User
Radio Foundations	RDS0002	Basic RF	•					•	•	
	RDS0003	Basic Networking	•					•	•	
	RDS0004	Basic Radio	•					•	•	•
	RDS2012	Advanced RF: Introduction	•					•	•	
	RDS2013	Advanced RF: Performance	•					•	•	
	RDS2014	Advanced RF: Troubleshooting	•					•	•	
	ACT100E	Bridgin the Knowledge Gap - Technicians	•						•	
	ACT101E	Bridgin the Knowledge Gap - System Administrator	•					•		
	NST9252	Introduction to R56	•					•	•	
	NST021	Communication System Concepts	•					•	•	
	NST762	Networking Essentials in Motorola Communications Equipment	•					•	•	
	NST925	Site Installation Practices Workshop R56	•					•	•	
	AST4104	ASTRO® 25 Systems Applied Networking			•	•	•	•	•	
	TGTC08	RF Fundamentals	•					•	•	
DIMETRA™ Systems	DMT0057	Introduction to Trunked Radio Concepts	•					•	•	
	DMT1114	DIMETRA™ Express Security Features: Install, Config and Maintenance			•	•	•	•	•	
	17421	DIMETRA X Core D10 System Overview			•	•		•	•	•
	17423	DIMETRA X Core D10 Configuration and Administration			•	•	•	•	•	
	17425	DIMETRA X Core D10 Fault Management				•	•	•	•	
	17427	DIMETRA X Core D10 Performance Management				•	•	•	•	
	17429	DIMETRA X Core D10 Troubleshooting and Maintenance					•	•	•	
	17431	DIMETRA X Core D10 Air Interface Encryption, Authentication & Provisioning			•	•	•	•	•	
	17433	DIMETRA X Core D10 Network Security			•	•	•	•	•	
	17435	DIMETRA X Core D10 Dispatch Communications Server			•	•	•	•	•	
	17437	DIMETRA X Core D10 MSO Restoration and Recovery					•	•	•	
	DMT0085	DIMETRA X Core Alias Server Workshop			•	•	•	•	•	
	DMT0036	DIMETRA™Express Installation, Configuration & Maintenance Workshop			•	•	•	•	•	
Console Courses	17439	DIMETRA X Core D10 MCC 7500C Workshop			•	•	•	•	•	
	DMT0072	DCX9000 for DIMETRA™ Express Workshop		•	•	•	•	•	•	•
	CON012	MCC 7000 Series Dispatch Consoles Workshop			•	•	•	•	•	
Base Stations	TBTS01	MTS 2/MTS 4 Install, Config, Troubleshooting & Maintenance Workshop			•	•	•	•	•	
	TBTS04	MTS 1 Install, Config, Troubleshooting and Maintenance Workshop			•	•	•	•	•	

Live training
Self-paced training

GENERAL INFORMATION

For information on prerequisites and to register for courses visit the Learning Center at: learningcenter.motorolasolutions.com

For general information contact the Europe, Middle East and Africa Education Services Help Desk at: training.emea@motorolasolutions.com

Portfolio	Course Code & Type	Course Title	Foundations	Product/System Intro	Stage & Deploy	Operate	Mantain	Administrator	Technician	End User
Subscribers	DMT0029	ADVISOR TPG2200 TETRA Two-Way Pager End User Operator			•	•				•
	DMT7001	MXM7000 Overview	•			•		•	•	•
	DMT7000	MXP7000 Overview	•			•		•	•	•
	DMT7004	MXP7000 & MXM7000 Setup and Provisioning				•		•	•	
	DMT1054	MTP3000 Series End User Operator				•	•	•	•	•
	DMT1070	MTM5000 Series End User Operator				•	•	•	•	•
	DMT1083	ST7000 End User Operator				•	•	•	•	•
	DMT6003	MXP600 End User Operator				•	•	•	•	•
	16840	MXP660 End User Operator				•	•	•	•	•
	DMT0600	MXM600 End User Operator				•	•	•	•	•
	19381	MOTOTRBO DM4000 Series End-User Training				•	•	•	•	•
	16604	MOTOTRBO R7 End-User Training				•	•	•	•	•
	20420	MOTOTRBO R2 End-User Training				•	•	•	•	•
	TTER01PLUS	TETRA Terminal Programming Course (CPS Plus)				•	•	•	•	
	DMT1050	Integrated Terminal Management (Remote Programming)				•	•	•	•	
	TMSC04	TRACES Workshop				•	•	•	•	
	DMT1107	TETRA Subscriber Operator, Programming and Maintenance				•	•	•	•	•
	PCT0185	MOTOTRBO™ Customer Programming Software 2.0				•	•	•	•	
	TBO300	MOTOTRBO Subscriber & Repeater Technical Service Academy				•	•	•	•	
	PCT2022	MOTOTRBO Radio Management 2.0 Workshop			•	•		•	•	
	RDS 2017	APX™ Radio Management Workshop			•	•	•	•	•	
	APX7001	APX™CPS Programming and Template Building		•	•	•		•	•	
	APX010	APX™ Technical Subscriber Academy		•	•		•	•	•	•
MOTOTRBO™ Systems	PCT1047	MOTOTRBO™ Capacity Max Technicial Overview		•	•	•		•	•	
	PCT1046	MOTOTRBO™ Capacity Max Theory of Operation			•	•	•	•	•	
	PCT1066	MOTOTRBO™ IP Site Connect and Capacity Plus Technical Overview		•	•			•	•	
	PCT0147	Capacity Max System Server Upgrade			•	•	•	•	•	
	CEDMEL2000	MOTOTRBO™ System Introduction for Technicians			•			•	•	
	PCT2023	MOTOTRBO™ IP Site Connect and Capacity Plus Theory of Operations & Design			•			•	•	
	PCT3014	MOTOTRBO™ IP Site Connect and Capacity Plus System Workshop			•	•	•	•	•	
	PCT3030	MOTOTRBO™ Capacity Max Technical Overview			•			•	•	
	PCT2010	MOTOTRBO™ Capacity Max Design and Deploy		•	•	•	•	•		
	PCT2005	SmartPTT Plus			•	•	•	•	•	
	PCT2006	TRBONet Plus Essentials and Deployment			•	•	•	•	•	
	PCT3031	TRBONet Plus for Capacity Max			•	•	•	•	•	

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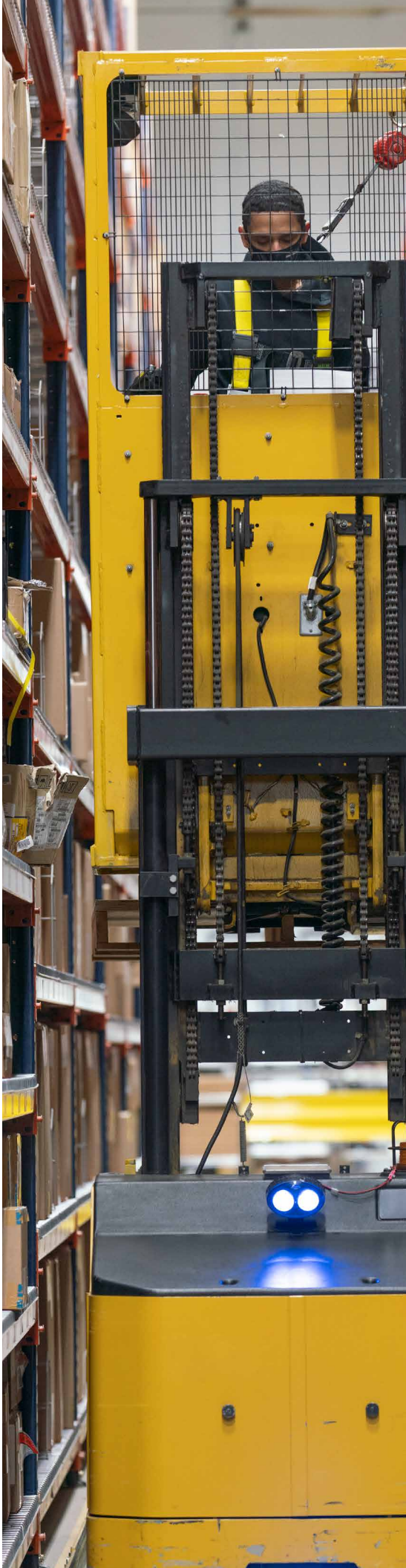
Portfolio	Course Code & Type	Course Title	Foundations	Product/System Intro	Stage & Deploy	Operate	Mantain	Administrator	Technician	End User
ASTRO® Systems	AST1038	ASTRO®25 IV&D System Overview		•				•	•	
	AST4102	ASTRO®25 IV&D Radio System Administrator Workshop			•	•	•	•	•	
	AST4103	ASTRO®25 IV&D System Core Workshop			•	•	•	•	•	
	AST4207	ASTRO®25 IV&D Secure Communications Workshop			•	•	•	•	•	
	AST4208	ASTRO®25 IV&D GTR 8000 Repeater Site Workshop			•	•	•	•	•	
	AST4217	ASTRO® 25 IV&D IP Based Digital Simulcast Workshop			•	•	•	•	•	
	AST0176	Data Services Administration			•	•	•	•	•	
	RDS1017	ASTRO® 25 Systems Fleetmapping			•	•	•	•	•	
	AST2038	ASTRO®25 IV&D Radio Authentication			•	•	•	•	•	
Private Broadband	PTT0001E	WAVE PTX Overview				•	•		•	
	PTT0004E	WAVE PTX R11.2 Mobile Application: End-User Training (APAC)				•	•			•
	PTT0006E	Central Admin Tool (CAT) R10.0 & R11.2: End-User Training				•	•			•
	PSA0077	WAVE PTX User Provisioning Portal			•	•	•	•	•	
	PSA0078	WAVE PTX Enterprise Contacts and Group Mgmt Portal			•	•	•	•	•	
	PSA0079	WAVE PTX Handset Standard Mode			•	•	•	•	•	
	PSA0080	WAVE PTX Handset PTT Radio Mode			•	•	•	•	•	
	PSA0081	WAVE PTX Dispatch Console and Features			•	•	•	•	•	
	PTT0071	WAVE PTX System Overview & Architecture			•	•	•	•	•	
	PTT0072	WAVE Gateway Overview & Architecture			•	•	•	•	•	
	PTT0075	Critical Connect (Gateway) Portal for Interoperability with WAVE System			•	•	•	•	•	
Mobile Video	PSA0036	VideoManager System Administrator			•	•	•	•	•	
	PSA0030	VideoManager User Training				•	•		•	•

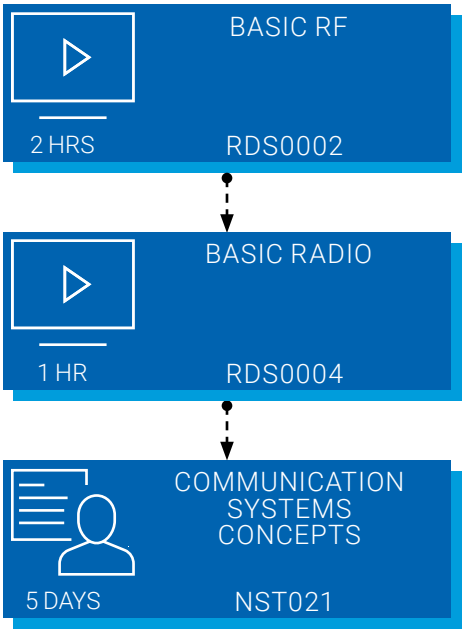
Live training
Self-paced training

FOUNDATIONAL COURSES



RF FUNDAMENTALS

RF BASICS / RADIO SYSTEM BASICS

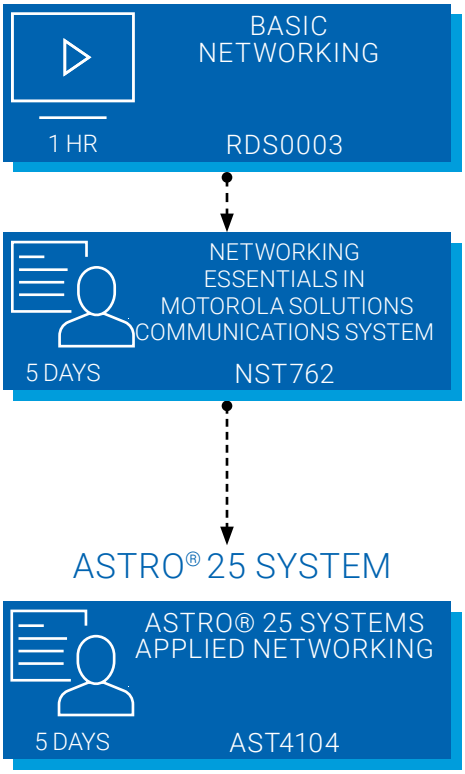


CURRICULUM COMPLETE

CLICK HERE TO GO TO PAGE 24 FOR MORE DETAILS ON DIMETRA

CLICK HERE TO GO TO PAGE 52 FOR MORE DETAILS ON ASTRO® P25

IP/NETWORKING FUNDAMENTALS



CURRICULUM COMPLETE

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RADIO SOLUTIONS FOUNDATIONAL

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For general information contact the Europe, Middle East and Africa Education Services Help Desk at: training.emea@motorolasolutions.com

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.

TARGET AUDIENCE

Technical staff who need to understand communication systems concepts.

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.

RECOMMENDED PREREQUISITE

None

COURSE OVERVIEW

This course provides a detailed overview of the fundamentals of computer networking. Topics include the TCP/IP five layer model, interconnecting devices, transmission media, user-facing applications and network security.

TARGET 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.
- Compare the OSI and TCP/IP reference models.
- Identify standards organizations.
- Define the physical and logical topologies in system networking.
- Define the various transmission media.
- Define commonly used network protocols.
- Describe the levels of network security and types of network protection

RECOMMENDED PREREQUISITE

None

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.

TARGET AUDIENCE

Individuals who need a foundational overview of two-way radios.

COURSE OBJECTIVES

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

- Define what a two-way radio is.
- Describe two-way radio components.
- Describe communication types.
- List and describe ways of expanding coverage.
- Describe analogue 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.

RECOMMENDED PREREQUISITE

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

- RDS0002 -Basic RF

COURSE OVERVIEW

This course provides an introduction to advanced concepts of radio frequency. Topics include circuit elements, modulation, frequency spectrum, the decibel scale, and filters. This is part one of a three-part training course on RF for Radio Professionals.

After completing this course, please proceed to the RDS2013 Advanced RF: Performance training course.

TARGET 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

By the end of the course, the student will be able to:

- Describe the basic circuit elements and phenomena.
- Define and compare different types of digital modulation.
- List common frequency spectrum bands and describe their common uses.
- Describe the filtering process and types of RF filters.
- Describe the process of building a link budget

RECOMMENDED PREREQUISITE

Completion of the following course or equivalent experience:

- RDS0002 - Basic RF

COURSE OVERVIEW

This course provides an overview of RF performance elements. Topics include transmission lines, antennas, hardware filters, performance parameters, and testing equipment. This is part two of a three-part training course on RF for Radio Professionals.

After completing this course, please proceed to the RDS2014 Advanced RF: Troubleshooting training course

TARGET 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

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

- Describe the transmission line theory.
- Provide the guidelines for cable selection, routing and installation.
- Provide an overview of different antenna types and their uses.
- List advanced RF hardware filters and provide their functions.
- Discuss RF performance issues.
- List and describe transmitter performance parameters.
- List and describe receiver performance parameters.
- List and describe common test equipment

RECOMMENDED PREREQUISITE

Completion of the following course or equivalent experience:

- RDS0002 - Basic RF
- RDS2012 - Advanced RF: Introduction

COURSE OVERVIEW

This course provides an overview of troubleshooting an RF system. During this course, you will learn how to locate and address issues in transmitting and receiving in an RF system. This is part three of a three-part training course on RF for Radio Professionals.

TARGET 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 a simple transmit and receive system.
- Locate transmit and receive problems in an RF system.
- Describe the RF troubleshooting process.
- List the equipment used during a troubleshooting process

RECOMMENDED PREREQUISITE

Completion of the following courses or equivalent experience:

- RDS0002 - Basic RF
- RDS2012 - Advanced RF: Introduction
- RDS2013 - Advanced RF: Performance

COURSE OVERVIEW
This course delivers a basic understanding of RF.

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

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

RECOMMENDED PREREQUISITE
None

COURSE OVERVIEW
This course emphasizes the concepts behind RF Systems theory and operation. Major topics covered include:
- RF System Operation and a basic walkthrough of building a communication system
- Trunking Operation
- Types of modulation used in RF System operation
- Radio frequency path
- Decibels and their uses on the job
- RF Propagation/RF Interference
- Basic Troubleshooting practices

TARGET AUDIENCE
Individuals who are interested in the operational concepts of driving modern communication systems.

COURSE OBJECTIVES
Upon 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.

RECOMMENDED PREREQUISITE
- Knowledge of basic electronics
- Experience using standard communication test equipment

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

TARGET 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

RECOMMENDED PREREQUISITE
Completion of the following course(s) or equivalent experience:
- An understanding of basic Motorola Communications Systems
- Basic familiarization with computer operating systems
- Completion of Basic Networking course (RDS0003) or equivalent experience

INTRODUCTION TO R56

1.5 HRS NST9252

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

TARGET AUDIENCE
Technicians who need an introduction to the R56 processes.

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

RECOMMENDED PREREQUISITE
None

SITE INSTALLATION PRACTICES WORKSHOP R56

4 DAYS NST925

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

TARGET AUDIENCE
Technicians who need an introduction to the R56 processes.

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

RECOMMENDED PREREQUISITE
Graduate of a basic electronics course

BRIDGING THE KNOWLEDGE GAP FOR ASTRO® 25 – TECHNICIAN

4 HRS ACT100E

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.

TARGET 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 analogue radio communication signalling to ASTRO® 25 radio communications signalling
- 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 signalling information controls that flow of information
- Describe the features of each radio communication system in terms of advantages and disadvantages

RECOMMENDED PREREQUISITE
None

BRIDGING THE KNOWLEDGE GAP FOR ASTRO® 25 – SYSTEM ADMINISTRATOR

4 HRS | ACT101E

COURSE OVERVIEW

This 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 five 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.

TARGET AUDIENCE

This is targeted for System Administrators 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:

- 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 signalling 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

RECOMMENDED PREREQUISITE

None

ASTRO® 25 SYSTEMS APPLIED NETWORKING

5 DAYS | AST4104

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 25 System.

TARGET AUDIENCE

Technical System Managers and Technicians

COURSE OBJECTIVES

At the end of this course the student will be able to:

- Describe ASTRO® 25 topologies.
- Describe ASTRO® 25 traffic flows.
- Describe TCP/IP addressing in an ASTRO® 25 network.
- Configure switches and verify switch operation.
- Configure routers and verify router operation.
- Compare Motorola GGM 8000 routers and Juniper routers.
- Perform common maintenance tasks for switches and routers.
- Describe IP Multicast addresses and talkgroup operation.
- Describe network management functions and applications.
- Describe Information Assurance in ASTRO® 25.
- Describe extended topologies such as the Data Subsystem and ISSI.

RECOMMENDED PREREQUISITE

Completion of the following courses or equivalent experience:

- NST762 - Networking Essentials in Motorola Communications Systems

DIMETRA™ SYSTEMS COURSES

DIMETRA™ SYSTEM TRAINING IS AVAILABLE IN PREVIOUS RELEASES;
WE ALSO DELIVER DIMETRA DELTA TRAINING FOR EVERY NEW RELEASE.
PLEASE CONTACT MOTOROLA SOLUTIONS FOR MORE INFORMATION.

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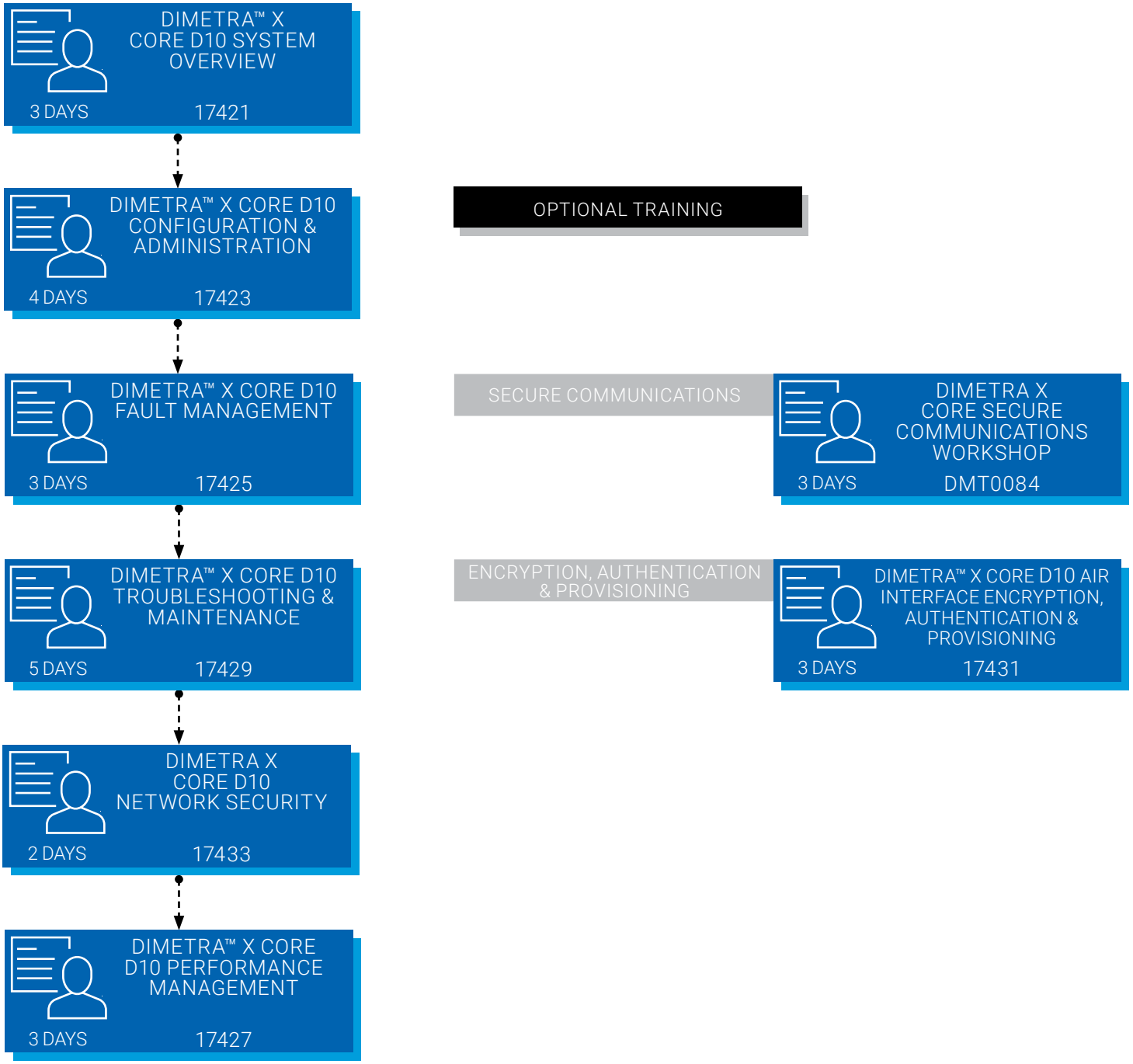
DIMETRA™ MSO SYSTEM ENGINEER



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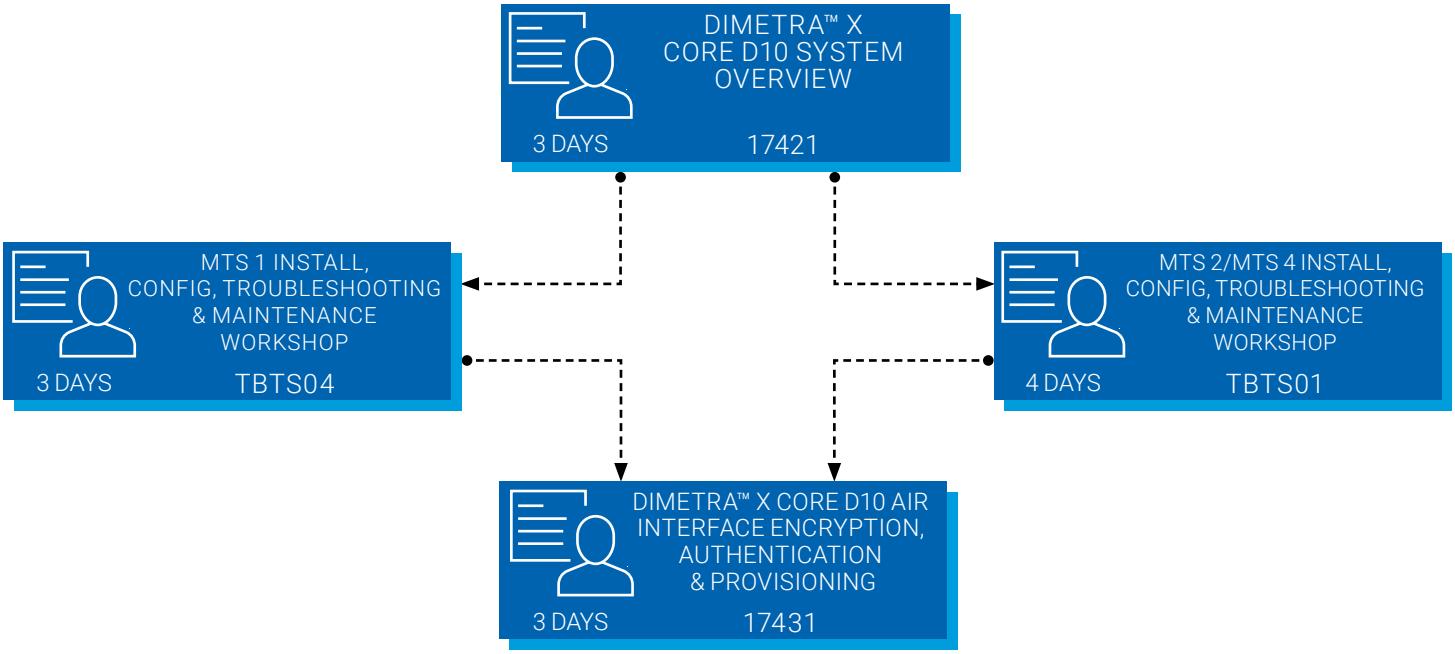
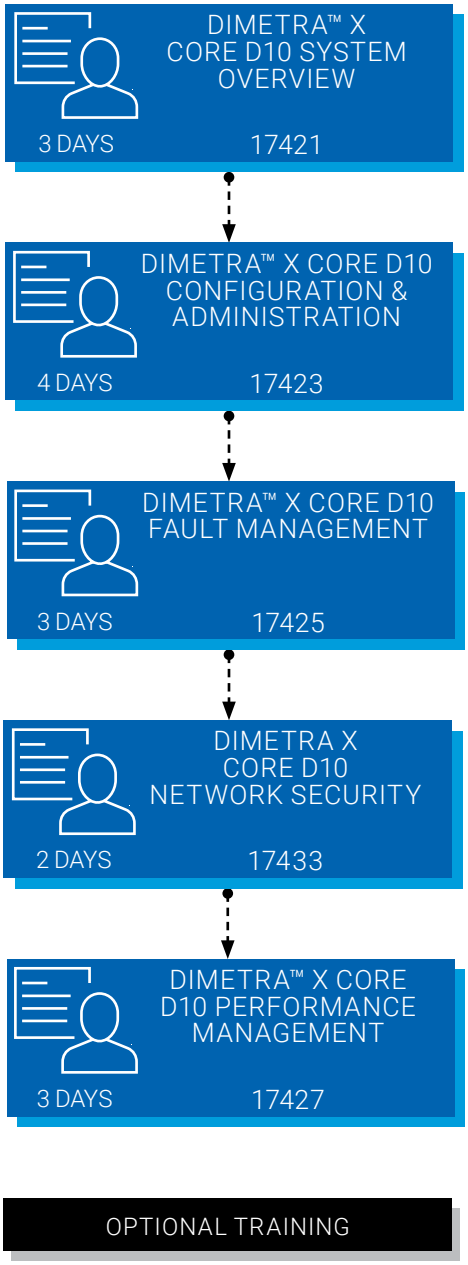
DIMETRA™ FIELD ENGINEER

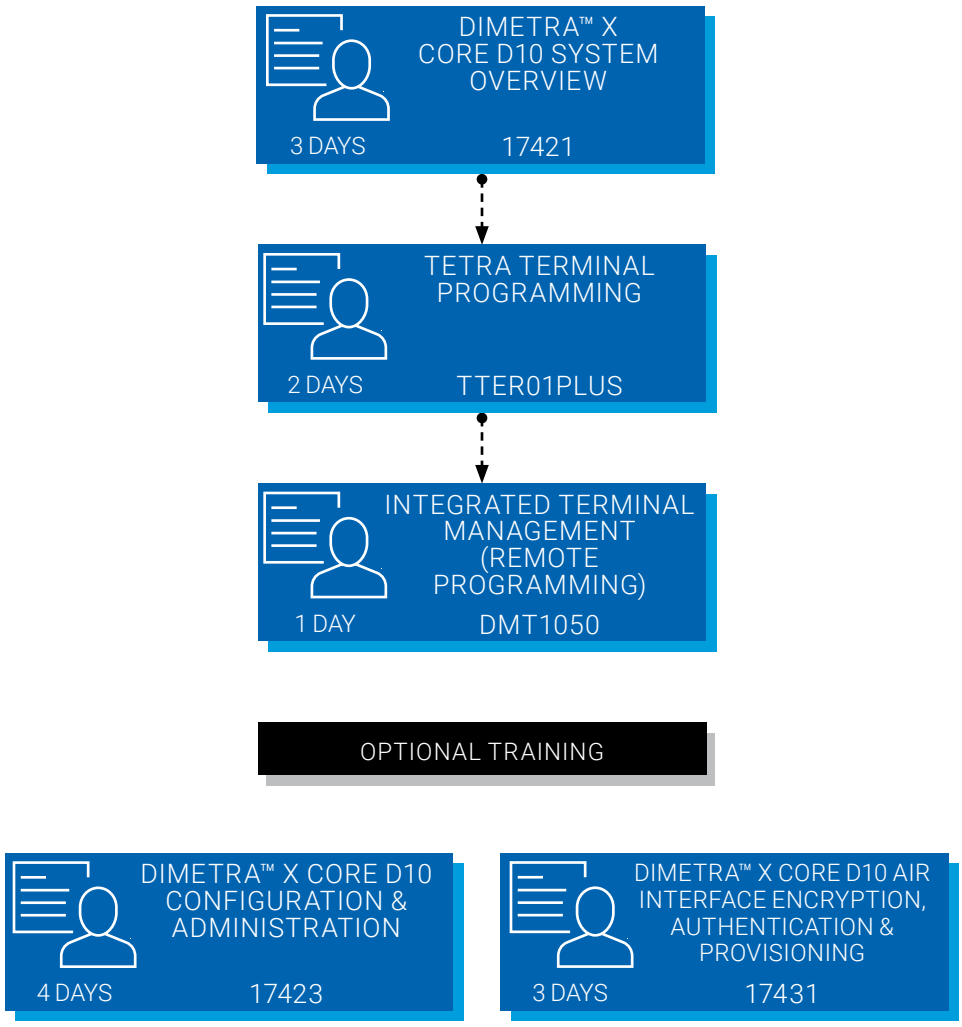


OPTIONAL TRAINING

DIMETRA™ SYSTEM ADMINISTRATOR



RADIO PROGRAM AND FLEETMAPPING



INTRODUCTION TO TRUNKED RADIO CONCEPTS

0.5 HRS DMT0057

COURSE OVERVIEW
This course provides an overview of basic radio concepts and the main technical characteristics of a TETRA Radio system. The course describes the principles of trunked and conventional radio systems.

TARGET AUDIENCE
All staff who require an overview of basic radio concepts and the main technical characteristics of a TETRA Radio system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the operation of a Basic Conventional Radio system.
- Describe the advantages of a Trunked Radio system over a Conventional Radio system.
- Describe the main technical characteristics of a TETRA Radio system.

RECOMMENDED PREREQUISITE
None

DIMETRA EXPRESS SECURITY FEATURES: INSTALL, CONFIG, & MAINTENANCE

0.5 HRS DMT1114

COURSE OVERVIEW
Students will learn how to perform authentication, provisioning, and air interface encryption procedures within a DIMETRA™ Express System. You will learn how to install, configure and maintain the DIMETRA Express security features.

TARGET AUDIENCE
System Operators and Managers responsible for the provisioning and management of key authentication in a DIMETRA Express System.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe how Air Interface Encryption and Authentication work within the DIMETRA Express System.
- Describe the hardware components used in the Encryption and Authentication Process.
- Describe distribution, storage, key updates, and key management of Air Interface Encryption and Authentication keys.
- Perform Encryption Key management procedures.

RECOMMENDED PREREQUISITE
Knowledge of the DIMETRA Express configuration and administration graphical user interface.

DIMETRA X CORE D10 SYSTEM OVERVIEW

3 DAYS 17421

COURSE OVERVIEW
This course provides an overview of the features and functions of a DIMETRA™ X Core D10 system. The course includes descriptions of the various call types and system hardware functionality. The applications overview describes the purpose of the software used to manage and administer the system.

TARGET AUDIENCE
Individuals who need an overview of the DIMETRA X Core system functionality and features.

COURSE OBJECTIVES
At the end of this course, the student will be able to:
- Describe DIMETRA X Core features and their benefits.
- Describe DIMETRA X Core single zone system components and their functionality.
- Describe the purpose and function of the DIMETRA X Core Network Management applications.
- Describe DIMETRA X Core multi-zone system components and their functionality.
- Describe how different types of calls are processed through a DIMETRA X Core system.
- Describe Inter-System Interface architecture and functionality.

RECOMMENDED PREREQUISITE
- DMT0057 - Introduction to Trunked Radio Concepts.

DIMETRA X CORE D10 CONFIGURATION & ADMINISTRATION

4 DAYS 17423

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

TARGET AUDIENCE
System managers responsible for the configuration and administration of a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the purpose of configuration management and server administration within your DIMETRA X Core system.
- Describe fleetmapping and home zone map functions.
- Perform configuration procedures using User Configuration Manager (UCM).
- Perform configuration procedures using Zone Configuration Manager (ZCM).
- Perform configuration procedures using Radio Control Manager (RCM).
- Perform server database administration tasks.

RECOMMENDED PREREQUISITES
Completion of the following course or equivalent experience:
- 17421 - DIMETRA™ X Core D10 System Overview

DIMETRA X CORE D10 FAULT MANAGEMENT

3 DAYS 17425

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

TARGET AUDIENCE
System operations staff and field engineers who perform fault management tasks on a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Define the role of Fault Management within Network Management.
- Define the role of each of the applications used within Fault Management.
- Use the following applications to facilitate Fault Management:
  - Unified Event Manager (UEM)
  - Transport Network Device Manager (TNDM)
  - Zone Configuration Manager (ZCM
  - System Health Application Suite (SHAS)
- Perform backup and restore tasks using the Enhanced Software Update (ESU).

RECOMMENDED PREREQUISITES
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

DIMETRA X CORE D10 PERFORMANCE MANAGEMENT

3 DAYS 17427

COURSE OVERVIEW
During this workshop, delegates will use applications on a live DIMETRA™ X Core system based on real business scenarios. Delegates will learn how to interpret system and user performance based on call traffic and device statistics.

TARGET AUDIENCE
System operators and managers who monitor and collect system statistics on a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the factors that affect system performance.
- Describe the Performance Management Analysis process.
- List the Performance Management applications used in a DIMETRA X Core system.
- Describe the purpose of system reports, system usage applications and device statistics in Performance Management activities.
- Access and navigate DIMETRA Performance Management applications to monitor system activity and generate system reports.

RECOMMENDED PREREQUISITES
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

DIMETRA X CORE D10 TROUBLESHOOTING & MAINTENANCE

5 DAYS 17429

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

TARGET AUDIENCE
System and Field Engineers who troubleshoot and maintain a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the troubleshooting process and fault management approach to maintain the DIMETRA X Core system.
- Describe the architecture and hardware components of the following subsystems:
  - Common Server Platform
  - Call Processing Subsystem
  - Network Management Subsystem
  - Telephone Interconnect Subsystem
  - Data SubsystemNetwork Transport Subsystem
- Perform maintenance and troubleshooting procedures on the DIMETRA X Core system.
- Perform backup and restoration procedures on the related application server.
- Replace and reconfigure faulty Field Replaceable Units (FRUs) and Field Replaceable Equipment/Entities (FREs) within a DIMETRA X Core system.

RECOMMENDED REQUISITES
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

REQUIRED REQUISITES
- 17423 - DIMETRA X Core D10 Configuration and Administration
- 17425 - DIMETRA X Core D10 Fault Management

DIMETRA X CORE D10 AIR INTERFACE ENCRYPTION, AUTHENTICATION & PROVISIONING

3 DAYS 17431

COURSE OVERVIEW
During this workshop, students will perform key management tasks on a live DIMETRA™ X Core D10 system. Students will perform authentication and provisioning procedures for the daily administration of user authentication and provisioning based on real business scenarios.

TARGET AUDIENCE
System operators and managers responsible for the provisioning and management of key authentication in a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of this course, the student will be able to:
- Describe how Air Interface Encryption and Authentication work within the DIMETRA X Core system.
- Describe the TETRA security classes and DIMETRA X Core encryption keys.
- Describe Authentication and Encryption keys distribution, storage, updates, and management.
- Describe operational principles of the Group Cipher Key (GCK) feature.
- Perform Encryption Key management procedures using the Enhanced Authentication Centre (EAuC) system components.
- Perform key provisioning of the TETRA radios for Authentication and Encryption operations.
- Perform EAuC administration and management tasks.

RECOMMENDED PREQUISITES
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

DIMETRA™ X CORE D10 NETWORK SECURITY

2 DAYS 17433

COURSE OVERVIEW
The workshop is designed to give an overview of the elements of the DIMETRA™ X Core network security solution. The generic threat to network security will be discussed. During this workshop, delegates will perform basic procedures using network security software elements.

TARGET AUDIENCE
System Operators, Managers, and Field Technicians responsible for the management and maintenance of Network Security in a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the network security frameworks discussed in this course.
- Describe the DIMETRA X Core Network Security subsystem and its components and functions.
- Describe the network security threats and vulnerabilities in a DIMETRA system and the methods to combat them.
- Describe the antivirus subsystem within a DIMETRA system.
- Perform antivirus management tasks using the client software.
- Describe the features and functions of Active Directory.
- Describe the implementation of Active Directory in a DIMETRA system.
- Perform Active Directory operations in a DIMETRA system.
- List the firewalls used in a DIMETRA system.
- Perform firewall configurations for a DIMETRA system.

RECOMMENDED PREQUISITES
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

DIMETRA X CORE D10 DISPATCH COMMUNICATIONS CONTROL

3 DAYS 17435

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

TARGET AUDIENCE
Field and system engineers who support the DCS solution.

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

REQUIRED PREREQUISITES
- 17421 - DIMETRA™ X Core D10 System Overview
- 17423 - DIMETRA™ X Core D10 Configuration and Administration

DIMETRA X CORE D10 MSO RESTORATION & RECOVERY

5 DAYS 17437

COURSE OVERVIEW
During this workshop, delegates will perform complete hardware, software, and database restorations of the DIMETRA™ X Core MSO system. The tasks will be carried out in a lab environment through hands-on activities according to the procedures and guidelines from system documentation.

TARGET AUDIENCE
Individuals who troubleshoot and maintain a DIMETRA X Core system.

COURSE OBJECTIVES
At the end of this course, you should be able to restore a DIMETRA X Core MSO system by means of:
- Performing complete system backup.
- Performing location failure simulation.
- Performing location switchover to maintain full operation environment.
- Reinstalling failed system hardware/ software components.
- Restoring system database and reconfigure the system back to original operating conditions.
- Performing post-restoration check and test.

REQUIRED PREREQUISITES
- 17421 - DIMETRA™ X Core D10 System Overview
- 17423 - DIMETRA™ X Core D10 Configuration and Administration
- 17425 - DIMETRA X Core D10 Fault Management
- 17429 - DIMETRA X Core D10 Troubleshooting and Maintenance
- 17431 - DIMETRA X Core D10 Air Interface Encryption, Authentication & Provisioning
- 17433 - DIMETRA X Core D10 Network Security

DIMETRA X CORE SECURE COMMUNICATIONS WORKSHOP

3 DAYS DMT0084

COURSE OVERVIEW
During the workshop, delegates will perform key management, administrative, and maintenance tasks on a live DIMETRA™ X Core system. Using real business scenarios, this workshop will allow delegates to perform key management, key transference, maintenance, and troubleshooting procedures on the Key Management Facility (KMF) server and client.

TARGET AUDIENCE
System operators, managers, and field technicians responsible for the management and maintenance of secure end-to-end communications in a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the theory of DIMETRA secure communications operation.
- Carry out KMF administration.
- Utilize the E2E KVL.
- Perform KMF OTAK/OTEK management activities and procedures.
- Administer the KMF server.
- Set up an MCC 7500S secure console.

RECOMMENDED PREREQUISITE
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA™ X Core D10 System Overview

DIMETRA™ X CORE ALIAS SERVER WORKSHOP

2 DAYS DMT0085

COURSE OVERVIEW

During this training, you will learn about the Radio User Assignment/Radio User Identity (RUA/RUI) feature and Alias Server. You will install hardware and software for the Alias Server functions. You will carry out configuration procedures and learn to resolve problems using troubleshooting techniques.

TARGET AUDIENCE

System operations staff and field engineers who perform installation, configuration, troubleshooting, and maintenance of the Alias Server.

COURSE OBJECTIVES

At the end of this course, the student will be able to:

- Describe the features of the Alias Server.
- Describe the RUA/RUI application.
- Describe the Service Redundancy Solution in the Alias Server
- List the hardware and software components in the Alias Server solution.
- Perform Alias Server and provisioning client software installation procedures.
- Perform Alias Server application procedures.

RECOMMENDED PREREQUISITE

Completion of the following courses or equivalent experience may be required, depending on the system:

- 17421 - DIMETRA X Core D10 System Overview

DIMETRA™ EXPRESS INSTALL, CONFIG & MAINTENANCE WORKSHOP

2 DAYS DMT0036

COURSE OVERVIEW

This course will give the opportunity to install and configure a DIMETRA™ Express system from start to finish. Learners will be able to carry out all of the necessary configuration activities required when commissioning a DIMETRA™ Express radio network.

TARGET AUDIENCE

Individuals who need to set up or manage a DIMETRA Express system.

COURSE OBJECTIVES

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

- Describe DIMETRA™ Express main features and functionality.
- Install DIMETRA™ Express system.
- Setup a DIMETRA™ Express system.
- Setup and configure additional sites to the DIMETRA™ Express system.
- Configure a DIMETRA™ Express system using DIMETRA™ Express Network Manager application and procedures.
- Describe/Perform TETRA radio authentication process/provisioning in the DIMETRA™ Express system.
- Perform authentication application administration and management tasks.

RECOMMENDED PREREQUISITE

A basic understanding of Radio Frequency (RF) technology and Internet Protocol (IP) fundamentals.

CONSOLE COURSES

DIMETRA X CORE D10 MCC 7500C WORKSHOP (17439)	35
DCX9000 FOR DIMETRA EXPRESS WORKSHOP (DMT0072)	35
MCC 7000 SERIES DISPATCH CONSOLES WORKSHOP (CON012)	35

DIMETRA X CORE D10 MCC 7500C WORKSHOP

3 DAYS 17439

COURSE OVERVIEW
This course gives students an in-depth explanation of the MCC7500C Dispatch Console solution. During this workshop, students will perform hands-on activities associated to the MCC 7500C Dispatch Console on a live DIMETRA™ X Core system.

TARGET AUDIENCE
Control Room Managers, System Engineers, and Network Administrators responsible for the deployment, maintenance, and operations of the MCC 7500C Dispatch Consoles in a DIMETRA X Core system.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the MCC 7500C Dispatch Console subsystem.
- Install the hardware and software components of the MCC 7500C Dispatch Console.
- Configure the MCC 7500C Dispatch Console using UCM and ZCM.
- Perform administrative tasks using the MCC 7500 Elite Admin software.
- Operate the MCC 7500 Elite Dispatch application to manage and communicate with radio resources.
- Troubleshoot installation and configuration problems from the MCC 7500C Dispatch Console.

RECOMMENDED PREREQUISITE
Completion of the following course(s) or equivalent experience:
- 17421 - DIMETRA X Core D10 System Overview

DCX9000 FOR DIMETRA EXPRESS WORKSHOP

2 DAYS DMT0072

COURSE OVERVIEW
In this workshop, you will learn about the features and functions of the DCX9000 Dispatch Console and Voice Logger. You will perform installation, configuration, and other end-user procedures to familiarize yourself with DCX9000.

TARGET AUDIENCE
Individuals who need to learn how to install, configure, and operate the DCX9000 system.

COURSE OBJECTIVES
After completing this course, you should be able to:
- Describe the DCX9000 system and its features and functions.
- Install and integrate DCX9000 with your DIMETRA™ system.
- Configure the DCX9000 and DIMETRA systems for the implementation of DCX9000.
- Use DCX9000 to communicate and manage your radio fleet.

RECOMMENDED PREREQUISITE
Basic knowledge of the installation and configuration of the DIMETRA Express system.

MCC 7000 SERIES DISPATCH CONSOLES WORKSHOP

4 DAYS CON012

COURSE OVERVIEW
This course familiarizes participants in installation, configuration, management and repair of MCC 7500(e) Dispatch Consoles AUX I/O servers, Conventional Channel Gateways, and other optional features.

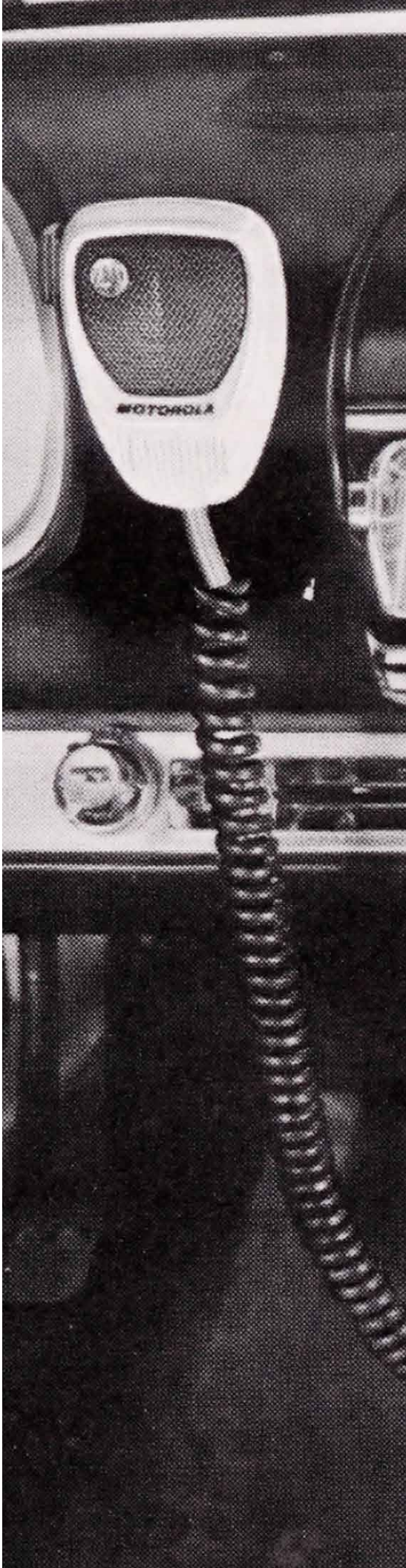
TARGET AUDIENCE
System Administrators, Console Technicians.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Understand key physical and functional characteristics of MCC 7500(e) Dispatch Consoles.
- Understand physical installation requirements of MCC 7500(e) Dispatch Consoles.
- Perform tasks necessary to install MCC 7500(e) Dispatch Consoles components.
- Perform configuration steps for MCC 7500(e) Dispatch Consoles components.
- Understand available maintenance tools and indicators in MCC 7500(e) Dispatch Consoles.
- Troubleshoot MCC 7500(e) Dispatch Consoles components to the Motorola Solutions recommended service level.
- Perform tasks necessary to provision users for MCC 7500(e) Dispatch Consoles.
- Configure the MCC 7500(e) Dispatch Consoles interface.
- Perform required administrative activities for MCC 7500(e) Dispatch Consoles.
- Perform tasks necessary to install and configure MCC 7500(e) console AuxIO servers (SDM 3000 and MC-EDGE).

RECOMMENDED PREREQUISITE
- ACT100E or ACT101E - Bridging the Knowledge Gap
- NST762 - Networking Essentials in Motorola Communications Equipment
- AST4104 - ASTRO® 25 Systems Applied Networking

REQUIRED PREREQUISITES
- AST1038 - ASTRO® 25 IV&D System Overview

BASE STATIONS COURSES



COURSE OVERVIEW

This course includes the theoretical and practical aspects of configuring, maintaining and troubleshooting the MTS base station in a DIMETRA™ system. The course includes the practical use of service software and the human-machine interface. Practical sessions include the removal and replacement of Field Replaceable Units (FRU).

TARGET AUDIENCE

Field Engineers responsible for installing, configuring and maintaining the base station equipment.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Describe the function of the MTS within a DIMETRA™ system.
- Identify and describe functions of MTS components.
- Perform MTS installation procedures.
- Perform MTS status verification commands.
- Perform configuration and maintenance tasks using Motorola TETRA BTS Service Software.
- Verify minimum MTS configuration requirement for Wide Area Trunking mode.
- Download a configuration file to the MTS using the Software Download Manager applications.
- Carry out removal and replacement procedures for MTS FRUs.
- Perform Ki loading procedures to the MTS.
- Describe MTS expansion option.
- Troubleshoot MTS to FRU level.

RECOMMENDED PREREQUISITE

- RF and Field or Bench service background.
- Completion of a DIMETRA™ System Overview course or equivalent experience is recommended.

COURSE OVERVIEW

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

TARGET AUDIENCE

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

COURSE OBJECTIVES

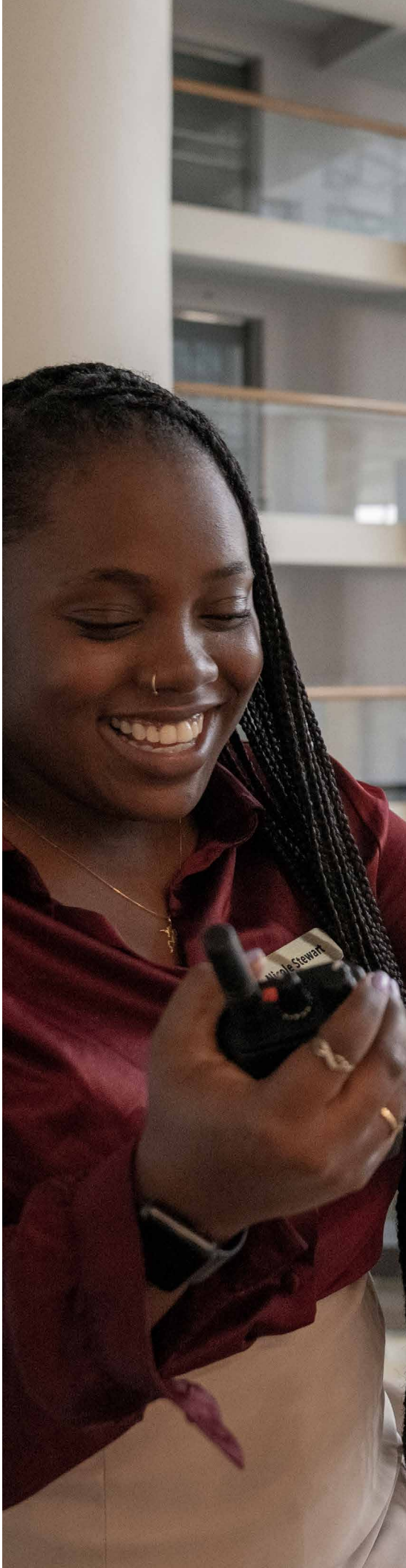
After completing this course, the student will be able to:

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

RECOMMENDED PREREQUISITE

RF and Field or Bench service background is recommended.

SUBSCRIBERS COURSES



TETRA SUBSCRIBER END-USER OPERATOR COURSES

COURSE OVERVIEW

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

TARGET AUDIENCE

Radio end-user operators

COURSE OBJECTIVES

The goal of End-User Operator courses is to enable the user to identify the features and functions of their chosen subscriber, to make calls and perform basic radio troubleshooting.
After completing any of these courses, the student will be able to:

- Identify the location and function of all subscriber keys and controls.
- Describe radio preparation including assembly and battery charging.
- Make all available Trunked Mode and Direct Mode calls.
- List optional features available to the subscriber.
- Perform basic subscriber troubleshooting.

MTM5000 SERIES END-USER OPERATOR
8 HRS DMT1070

MXP660 END USER OPERATOR
8 HRS 16840

MXM600 END USER OPERATOR
8 HRS DMT0600

ST7000 END-USER OPERATOR
8 HRS DMT1083

MXP600 END USER OPERATOR
8 HRS DMT6003

MTP3000 SERIES END-USER OPERATOR
8 HRS DMT1054

OTHER TETRA SUBSCRIBER COURSES

ADVISOR TPG2200 TETRA TWO-WAY PAGER END USER OPERATOR
0.5 HRS DMT0029

MXM7000 OVERVIEW
1 HR DMT7001

MXP7000 OVERVIEW
1 HR DMT7000

MXP7000 & MXM7000 SETUP AND PROVISIONING
0.75 HRS DMT7004

MOTOTRBO SUBSCRIBER END-USER OPERATOR COURSES

OVERVIEW

During this course, you will learn how to operate the MOTOTRBO radio. You will perform group and private calls, adjust the radio settings, and use features such as Emergency Operation, Security, and Text Messaging.

TARGET AUDIENCE

This course is intended for the end users of a MOTOTRBO radio who would like to familiarize themselves with the features and operation principles of their device

COURSE OBJECTIVES.

After completing any of these courses, the student will be able to:

- Prepare the radio for operation.
- Operate the radio and adjust the main settings.
- Identify the types of radio calls that can be made.
- Make and receive radio calls.
- Identify and use the main features of the radio.

REQUISITES

None

MOTOTRBO DM4000 SERIES END-USER TRAINING
1 DAY 19381

MOTOTRBO R7 END-USER TRAINING
1 DAY 16604

MOTOTRBO R2 END-USER TRAINING
1 DAY 20420

OTHER MOTOTRBO SUBSCRIBER COURSES

MOTOTRBO RADIO MANAGEMENT 2.0 CONFIGURATION MODE
1 HR PCT1032

MOTOTRBO CPS 2.0 PROGRAMMING
1 HR PCT0115

TETRA TERMINAL PROGRAMMING (CPS PLUS)

2 DAYS TTER01PLUS

COURSE OVERVIEW

This course will provide the background information and the knowledge required to program Motorola Solutions TETRA radios. The course is highly practical in nature and covers everything from software requirements and installation, through to programming and editing radio codeplugs, and troubleshooting..

TARGET AUDIENCE

Technical staff required to program Motorola Solutions TETRA radios.

COURSE OBJECTIVES

By the end of this course, the student will be able to:

- Identify and locate all program features.
- Describe the function of all major CPS Plus features and tools.
- Installation of the CPS and adding RPK files.
- Carry out radio programming using CPS Plus.
- Carry out CPS Plus troubleshooting procedures.

RECOMMENDED PREREQUISITE

None

INTEGRATED TERMINAL MANAGEMENT (REMOTE PROGRAMMING)

1 DAY DMT1050

COURSE OVERVIEW

This practical course will enable TETRA radio programmers to describe the applications used for remote programming of the mobile and portable radios fleet and perform tasks using the iTM release solution.

TARGET AUDIENCE

TETRA radio programmers and technical staff requiring knowledge of the Integrated Terminal Management solution.

COURSE OBJECTIVES

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

- Describe the role of the iTM system in managing the mobile terminal fleet
- Describe the Integrated Terminal Management features
- Identify hardware and software components in the iTM System
- Perform tasks involved with iTM software installation, configuration and operation.

RECOMMENDED PREREQUISITE

Working knowledge of MS Windows operating environment

TRACES WORKSHOP

2 DAYS TMSC04

COURSE OVERVIEW

This course provides an overview of the features and functions of the TETRA RF Automated Coverage Evaluation Solution (TRACES). You will also learn how to perform tasks using the TRACES application.

TARGET AUDIENCE

Network administrators and all staff who operate the TRACES application.

COURSE OBJECTIVES

After completing this course, you should be able to:

- Describe the role of TRACES in the TETRA system
- Describe the TRACES Architecture and Components
- Describe the TRACES software and Features
- Define software licence requirements
- Identify hardware and software components
- Describe system requirements for installing software on hardware devices
- Perform software installation procedures
- Perform TRACES Mapping Client tasks.

RECOMMENDED PREREQUISITE

A working knowledge of MS Windows operating environment.

TETRA SUBSCRIBER OPERATOR, PROGRAMMING & MAINTENANCE

1 DAY DMT1107

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

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

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Locate and use all MTP6650 and MTM5400 controls.
- Execute trunked and direct mode calls using the MTP6650 and MTM5400 radios.
- Carry out radio troubleshooting using built-in diagnostics.
- Describe the function of Motorola CPS Plus software.
- Create a user codeplug and program the codeplug into an MTP6650 and MTM5400 radio.
- Carry out software troubleshooting using CPS Plus.
- Carry out configuration for collaborative devices.

RECOMMENDED PREREQUISITE
None

MOTOTRBO™ CUSTOMER PROGRAMMING SOFTWARE 2.0

1.5 DAYS PCT0185

COURSE OVERVIEW
This course is an introduction to MOTOTRBO Customer Programming Software (CPS) 2.0. You will learn how to install and use CPS 2.0 to program your equipment..

TARGET AUDIENCE
Communication System Technicians, Technical Support Personnel, Service Technicians, Radio Programmers.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain the purpose of MOTOTRBO CPS 2.0.
- Successfully complete a read job.
- Update the settings for a codeplug.
- Successfully complete a write job.
- Demonstrate a general awareness for the common processes managed using MOTOTRBO CPS 2.0..

RECOMMENDED PREREQUISITE
None

MOTOTRBO™ SUBSCRIBER & REPEATER TECHNICAL SERVICE ACADEMY

4 DAYS TBO300

COURSE OVERVIEW
During this course you will learn about 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, as well as plenty of hands on, scenario-based lab work to reinforce knowledge transfer.

TARGET AUDIENCE
Radio Technicians

COURSE OBJECTIVES
- 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

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

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

TARGET AUDIENCE
System Managers and Technicians

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

RECOMMENDED PREREQUISITE
- Networking Essentials or Network + Certification.
- A high-level working knowledge of IP networking.

PREREQUISITES
PCT1032 - MOTOTRBO™ Radio Management 2.0 Configuration Mode

COURSE OVERVIEW
Participants will learn the capabilities, features, and functions of the APX™ Radio Management Suite.
The course contains networking labs and Radio Management labs that focus on installation, configuration, and operation using both wired and POP25 updates to APX™ Subscriber radios in both a LAN and WAN environment.

TARGET 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 a deployed server environment.
- Troubleshoot common APX™ Radio Management installation, configuration, and operation issues
- Use Best Practices to implement and optimise Radio Management Performance.

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- APX7001 - APX™ CPS Programming and Template Building Overview

COURSE OVERVIEW
The APX™ CPS Radio 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.

TARGET AUDIENCE
You should attend this training course if you are a radio technician or system manager who needs to:
- Perform APX radios programming.
- Gain knowledge of the APX CPS navigation, tools, options and features.
- Have a better understanding of APX subscriber operating in Conventional, Single Site trunking, Simulcast, SmartZone or ASTRO 25 IV&D TDMA and ASTRO 25 IV&D x2.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Navigate through the user interface of the APX™ Customer Programming Software (CPS).
- Build the APX family of programming templates using the APX™ CPS programming software.
- Program the specific conventional and trunking parameters related to the various system types in which the radios will operate.
- Program the radios using typical APX™ CPS features and functions, such as cloning and drag and drop operations.
- Use additional APX™ CPS related functions such as codeplug comparison, radio flashing, Advance System Key Administrator, and codeplug merging.

RECOMMENDED PREREQUISITE
Knowledge of the basic features and options of two-way radios and the basic concepts of trunking.

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 Level 2 (block-level) theory of operation for the APX family of radios and provide a review of APX CPS and Radio Management programming. In addition to the lecture, large amounts of hands on with scenario-based lab work will be used to reinforce knowledge transfer.

TARGET AUDIENCE

This course is intended for who would like to get familiar with the features, operation principles, troubleshooting steps and disassembly and reassembly of the APX family of radios .

COURSE OBJECTIVES

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

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

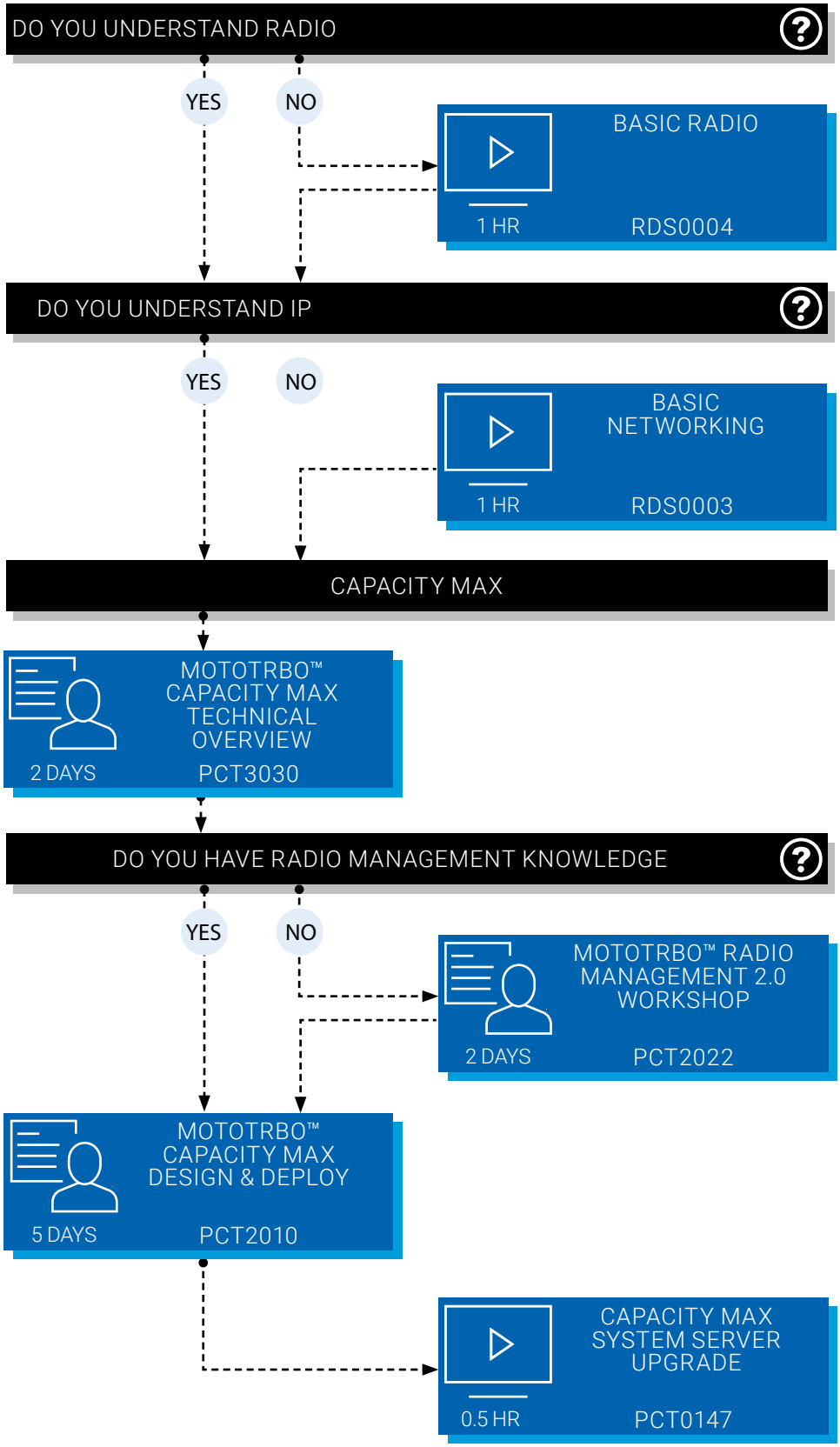
RECOMMENDED PREREQUISITE

Completion of the following courses or equivalent experience:

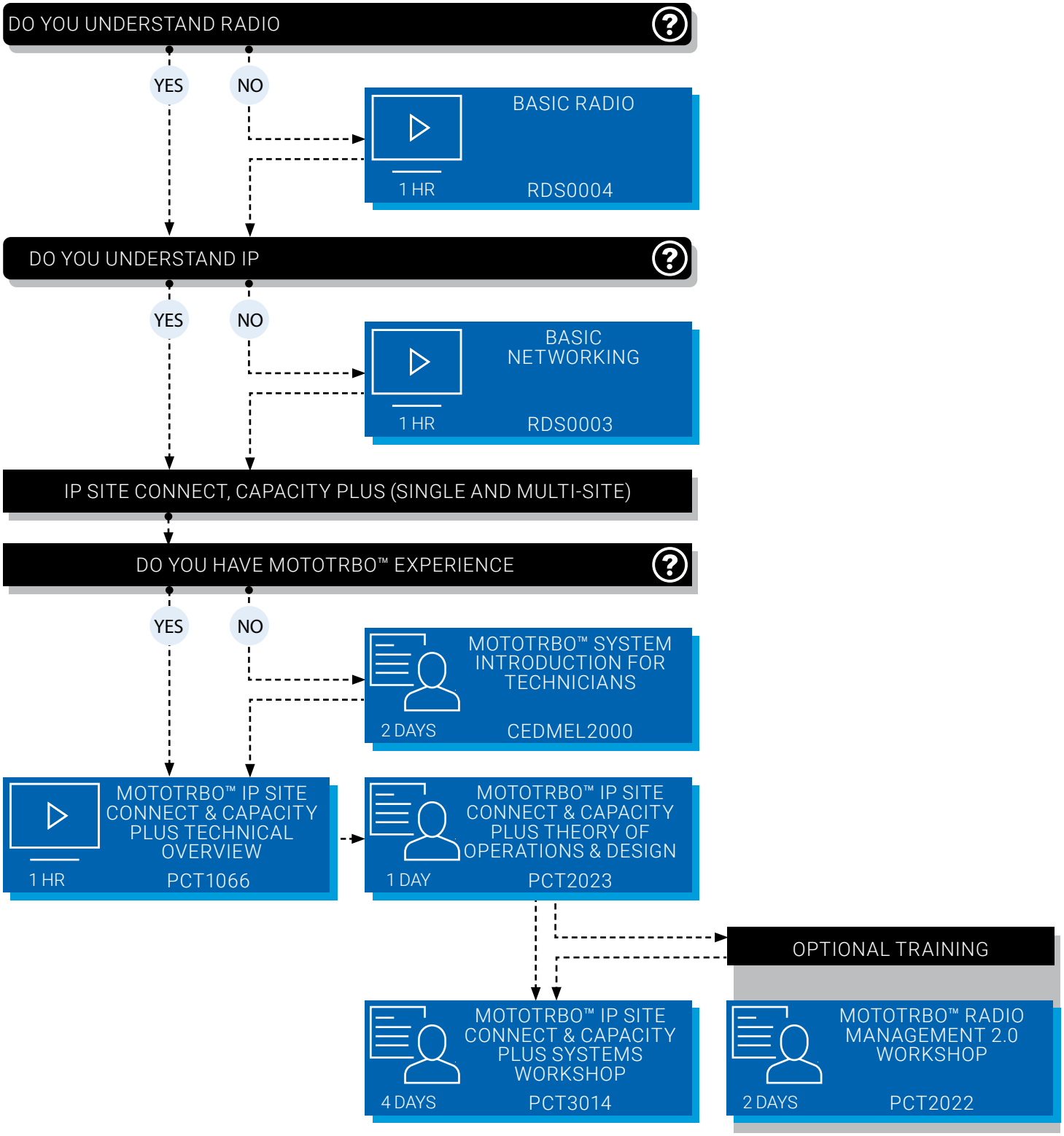
- NST021 - Communication Systems Concepts
- APX7001 - APX CPS Programming and Template Building Overview

MOTOTRBO™ SYSTEMS COURSES

MOTOTRBO™ TECHNICAL CAPACITY MAX TRAINING CURRICULUM



MOTOTRBO™ TECHNICAL IP SITE CONNECT, CAPACITY PLUS TRAINING CURRICULUM



COURSE OVERVIEW

This is an introductory course to the MOTOTRBO system theory of operation, key components and topologies. During this course you will learn about common MOTOTRBO features, capabilities, and system design and deploy principles. After completing this course, you will be ready to take the more advanced Design & Deploy courses for IP Site Connect and Capacity Plus systems.

TARGET AUDIENCE

Professionals responsible for selling, designing, configuring, deploying, or maintaining MOTOTRBO Digital Radio Systems.

COURSE OBJECTIVES

At the end of this course, you should be able to:

- Categorize the different components available to build your MOTOTRBO system.
- Explain the functional technology that MOTOTRBO systems employ
- Propose the MOTOTRBO topology that best fits the user requirements.
- Describe MOTOTRBO's digital and analog features.
- Analyze the various data applications' capabilities and everyday uses within the MOTOTRBO systems.
- Refer to system and channel capacity considerations during system planning.
- Refer to MOTOTRBO IP network design considerations during system planning.
- Select the right MOTOTRBO tool for your needs.
- Successfully purchase, register, and activate premium radio features

RECOMMENDED PREREQUISITE

Completion of the following optional courses or equivalent knowledge:

- RDS0003 - Basic Networking
- RDS0002 - Basic RF
- RDS0004 - Basic Radio
- AAE1402 - Professional and Commercial Radios (PCR) Portfolio Overview

COURSE OVERVIEW

This self-study course is designed to help you learn the fundamentals of the MOTOTRBO™ Capacity Max system. Whether you have a sales or technical background, this training will give you the information that you need to gain a basic understanding of a Capacity Max system. You will begin by exploring the DMR standard and Capacity Max's positioning within the MOTOTRBO™ portfolio of systems. You will also learn about the different hardware and software components that make up a Capacity Max system and gain an understanding of its logical and physical topology. Features, redundancy, design tools and warranty will also be covered in this course.

TARGET AUDIENCE

Professionals responsible for selling, designing, configuring, deploying, or maintaining MOTOTRBO™ radio systems.

COURSE OBJECTIVES

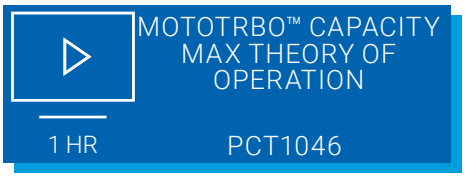
After completing this course, the student will be able to:

- Explain Digital Mobile Radio (DMR)
- Describe a basic Capacity Max system and where it fits in the MOTOTRBO™ Portfolio
- Describe the Capacity Max's system physical and logical topologies
- List the minimum hardware and software requirements for a Capacity Max system
- Distinguish the three different types of Capacity Max Operating Modes
- Identify the different features and license types available for a Capacity Max system

RECOMMENDED PREREQUISITE

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

- RDS0004 - Basic Radio



COURSE OVERVIEW

This foundational self-study course is designed to help you understand the theory of how a Capacity Max system functions. It describes the life cycle of a call, which includes: call initiation, call queuing, call grant or rejection, call transmission(s), and call termination. This knowledge is important for system troubleshooting and maintenance purposes.

TARGET AUDIENCE

Professionals responsible for selling, designing, configuring, deploying, or maintaining MOTOTRBO™ radio systems.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to describe and explain the functions of:

- Control Channel
- Roaming
- Radio Registration
- Call Request
- Call Setup
- Busy Queue
- Channel Allocation
- Call Termination

RECOMMENDED PREREQUISITE

Basic Radio knowledge

REQUIRED PREREQUISITES

PCT1047 - MOTOTRBO™ Capacity Max Technical Overview

MOTOTRBO™ CAPACITY MAX TECHNICAL OVERVIEW

2 DAYS | PCT3030

COURSE OVERVIEW
This course provides an overview of the features and functions of the MOTOTRBO™ Capacity Max system. The course includes descriptions of the various call types and system hardware functionality. The applications overview describes the purpose of the software used to manage and operate the system.

TARGET AUDIENCE
Individuals who need an overview of the MOTOTRBO™ Capacity Max system functionality and features.

COURSE OBJECTIVES
Upon completion of this course, the student will be able to:
- Describe the call processing in MOTOTRBO Technology.
- Describe Capacity Max System Components and their functions.
- Identify the hardware and software requirements for a Capacity Max system.
- Explain Capacity Max RF Site operation and functions.
- Review the key call types for a Capacity Max system.
- Describe Radio Management components and functions.
- Explain the mode of operation of dispatcher solutions.

RECOMMENDED PREREQUISITE
None

MOTOTRBO™ CAPACITY MAX DESIGN & DEPLOY

5 DAYS | PCT2010

COURSE OVERVIEW
During this course, you will learn about the design process for a Capacity Max Radio system. You will also practice designing and deploying a small scale Capacity Max system, and configuring Capacity Max using Radio Management 2.0 Configuration Mode. In order to get the most of the hands-on activities, participants MUST bring their own laptop to class with the latest RM 2.0 Configuration Mode software installed.

TARGET AUDIENCE
This training is intended for professionals responsible for designing, configuring, or deploying MOTOTRBO™ radio systems.

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

RECOMMENDED PREREQUISITE
- Understanding IP Network Addressing.
- Knowledge of RF Propagation modeling tools

REQUIRED PREREQUISITES
- PCT1032 - MOTOTRBO™ Radio Management 2.0 Configuration Mode
- PCT1046 - MOTOTRBO™ Capacity Max Theory of Operation
- PCT1047 - MOTOTRBO™ Capacity Max Technical Overview

CAPACITY MAX SYSTEM SERVER UPGRADE

0.5 HR | PCT0147

COURSE OVERVIEW
Capacity Max System Server Upgrade will conduct a CMSS upgrade by preparing the ESU Launchpad software, set up virtual machines, and server components. This course will also cover a complete run of the CMSS upgrade process successfully from start to finish.

TARGET AUDIENCE
This training is intended for professionals responsible for configuring the Capacity Max System Server upgrades. This would include but is not limited to: communication system technicians, technical system managers, technical support personnel, and service technicians.

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

RECOMMENDED PREREQUISITE
- Knowledge IP Network Addressing.
- Knowledge of virtual machines

MOTOTRBO™ IP SITE CONNECT & CAPACITY PLUS TECHNICAL OVERVIEW

1 HR PCT1066

COURSE OVERVIEW

This course is designed to help you understand the basics of a MOTOTRBO™ IP Site Connect and a MOTOTRBO™ Capacity Plus system. We'll begin by exploring their capabilities, features and positioning within the MOTOTRBO™ system solutions. You will also learn about the different system components and their general topology. The course will also review available MOTOTRBO™ services packages.

TARGET AUDIENCE

Professionals responsible for selling, designing, configuring, deploying, or maintaining MOTOTRBO™ radio systems.

COURSE OBJECTIVES

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

- Describe a MOTOTRBO™ IP Site Connect and Capacity Plus system.
- Explain the capabilities of the MOTOTRBO™ IP Site Connect and Capacity Plus system.
- Identify the MOTOTRBO™ IP Site Connect and Capacity Plus system components.
- Identify a MOTOTRBO™ IP Site Connect and Capacity Plus topology.
- Explain the difference in service plans between these systems.

RECOMMENDED PREREQUISITE

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

- RDS0004 - Basic Radio
- CEDMEL2000 - MOTOTRBO™ Systems Introduction for Technicians

MOTOTRBO™ IP SITE CONNECT & CAPACITY PLUS THEORY OF OPERATIONS & DESIGN

1 DAY PCT2023

COURSE OVERVIEW

During this course, you will learn about how IPSC and Capacity Plus systems function, as well as system design and deployment topologies, fleetmapping, and the MOTOTRBO System Design Tool. You will also learn about different types of data and site roaming options in both systems, as well as programming configurations in CPS 2.0.

TARGET AUDIENCE

Professionals responsible for designing and deploying MOTOTRBO radio systems.

COURSE OBJECTIVES

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

- Explain the call processing methods.
- Define repeater arbitration, Enhanced Channel Access (ECA) and All Start.
- List the considerations that must be taken into account when designing a MOTOTRBO IP Site Connect, Capacity Plus Single-Site or Capacity Plus Multi-Site system.
- Use the MOTOTRBO System Design Tool to size the system.
- Explain the purpose of Fleetmapping, how to conduct a fleetmap and its importance in system design.
- Illustrate possible system deployment topologies based on options selected.
- Configure the systems with the use of MOTOTRBO Customer Programming Software 2.0 (CPS 2.0).

RECOMMENDED PREREQUISITE

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

- RDS0004 - Basic Radio
- CEDMEL2000 - MOTOTRBO™ Systems Introduction for Technicians

REQUIRED PREREQUISITES

PCT1066 - MOTOTRBO™ IP Site Connect and Capacity Plus Technical Overview

MOTOTRBO™ IP SITE CONNECT & CAPACITY PLUS SYSTEMS WORKSHOP

4 DAYS PCT3014

COURSE OVERVIEW

During this course you will acquire in-depth hands-on experience in planning, configuring, and deploying the following MOTOTRBO systems: Digital Conventional, IP Site Connect, Capacity Plus Single and Multi-Site. You will have the opportunity to practice designing and deploying each system type, while taking into account the fleetmapping considerations for each system.

TARGET AUDIENCE

Professionals responsible for deploying MOTOTRBO radio systems.

COURSE OBJECTIVES

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

- Describe the MOTOTRBO IP Site Connect and Capacity Plus (Single and Multi-Site) systems, their capabilities, system components, and data application.
- Describe the MOTOTRBO IP Site Connect and Capacity Plus (Single and Multi-Site) theory of operation.
- Describe the available MOTOTRBO IP Site Connect and Capacity Plus (Single and Multi-Site) topologies.
- Take the steps needed to configure IP Site Connect and Capacity Plus (Single and Multi-Site) systems using MOTOTRBO CPS to program the subscribers and repeaters.

RECOMMENDED PREREQUISITE

Completion of the following courses or equivalent knowledge:

- RDS0004 Basic Radio
- CEDMEL2000 MOTOTRBO™ System Introduction for Technicians

REQUIRED PREREQUISITES

Completion of the following course or equivalent experience:

- PCT1066 - MOTOTRBO™ IP Site Connect and Capacity Plus Technical Overview
- PCT2023 - MOTOTRBO™ IP Site Connect and Capacity Plus Theory of Operations and Design

COURSE OVERVIEW

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

TARGET AUDIENCE

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

COURSE OBJECTIVES

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

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

RECOMMENDED PREREQUISITE

An understanding of IP network addressing and VoIP protocols.

Completion of the following course or equivalent experience:

- CEDMEL2000 - Introduction to MOTOTRBO™ Systems for Technicians
- PCT1047 - MOTOTRBO™ Capacity Max Technical Overview
- PCT1032 - Radio Management 2.0 Configuration Mode

COURSE OVERVIEW

This course covers all aspects of the TRBOnet Plus system. Participants will carry out configuration procedures for the system's main features and perform the main troubleshooting actions.

TARGET AUDIENCE

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

COURSE OBJECTIVES

By the end of this course, the student will be able to:

- Describe a TRBOnet Plus Dispatch system.
- Explain the TRBOnet Plus theory of operation.
- Understand and configure the TRBOnet Plus Radio server.
- Understand and configure the TRBOnet Plus Dispatch system.
- Understand and configure the TRBOnet Plus Interconnect system.
- Understand and configure the TRBOnet GPS/AVL operation.
- Understand and configure the TRBOnet Plus Redundancy operation.
- Understand the TRBOnet Plus user operation.
- Troubleshoot a complete TRBOnet Plus system

Recommended prerequisite
An understanding of IP Networking Addressing and VoIP protocols.
Completion of the following courses or equivalent knowledge:

- PCT1047 - MOTOTRBO Capacity Max Technical Overview
- PCT1032 - Radio Management 2.0 Configuration Mode
- RDS0002 - Basic RF

COURSE OVERVIEW

This course provides detailed information on the system's benefits, architecture and features, including the requirements for deploying a SmartPTT system. It also covers the installation and configuration of the Dispatch, Radioserver and associated system components and features.

TARGET AUDIENCE

Technicans and engineers who are involved in the design, deployment and installation or configuration of a SmartPTT Plus system.

COURSE OBJECTIVES

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

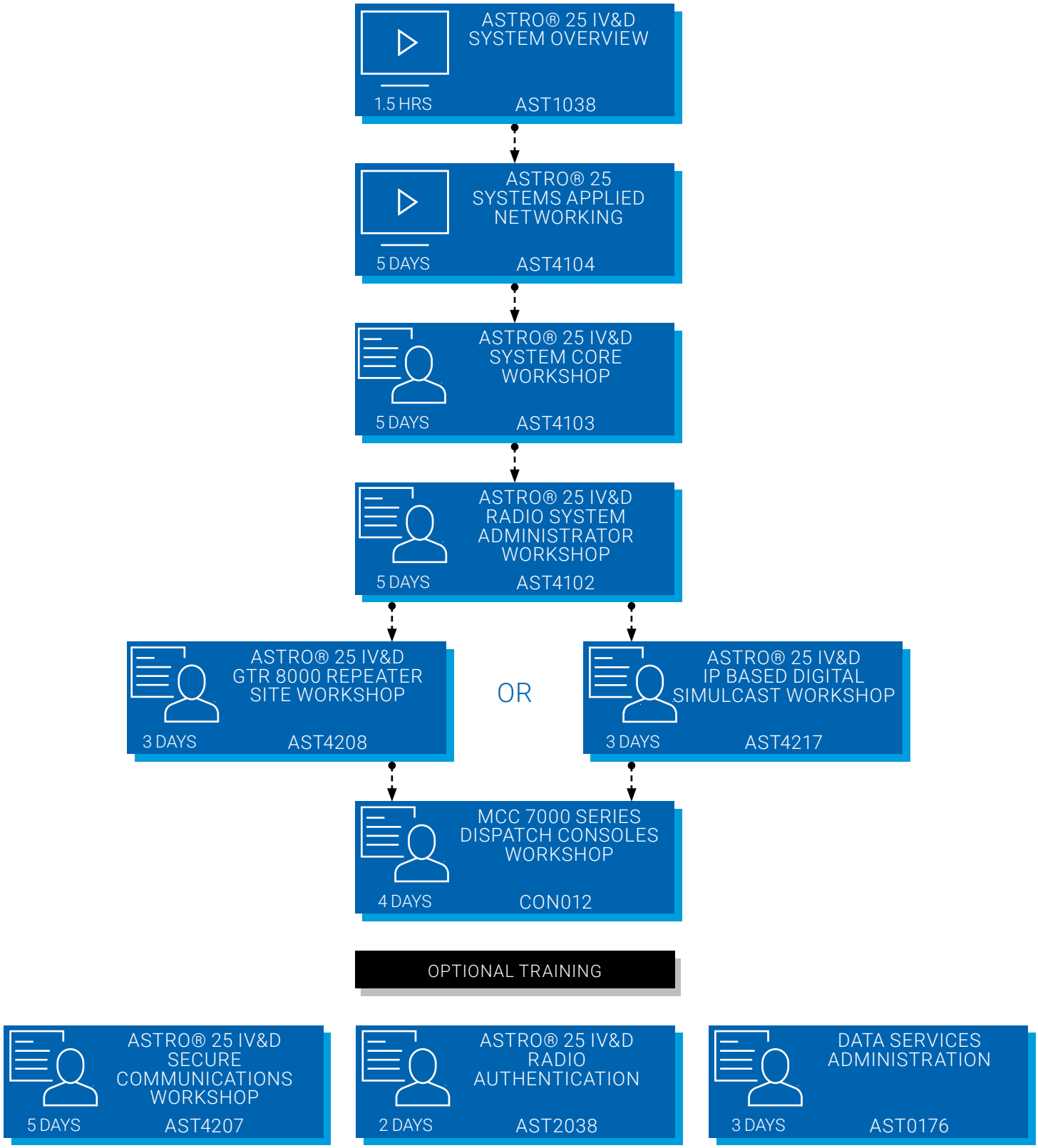
- Describe the functions and architecture of SmartPTT PLUS.
- List the system requirements for deploying a SmartPTT PLUS solution
- Describe the process of system design for IP Site Connect, Capacity Plus Single-Site systems.
- Describe the system design processes for Capacity Max.
- Define the set-up, installation and configuration process for the SmartPTT PLUS Radio Server and the the SmartPTT PLUS Dispatcher console functions.
- Configure MOTOTRBO radios and repeaters for SmartPTT PLUS.
- Configure MOTOTRBO Network Interface Service and MOTOTRBO DDMS Administrative Client

RECOMMENDED PREREQUISITE

- An understanding of IP Networking Addressing and VoIP protocols
- Completion of the following courses or equivalent knowledge:
  - CEDMEL2000 - Introduction to MOTOTRBO™ Systems for Technicians
  - PCT1047 - MOTOTRBO™ Capacity Max technical Overview
  - PCT1032 - Radio Management 2.0 Configuration Mode

ASTRO® 25 IV&D SYSTEM COURSES

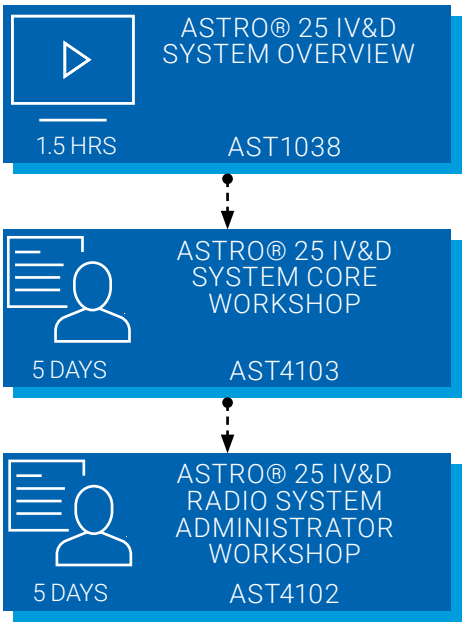
ASTRO® 25 SYSTEM ENGINEER



For information on prerequisites and to register for courses visit the Learning Center at: learningcenter.motorolasolutions.com

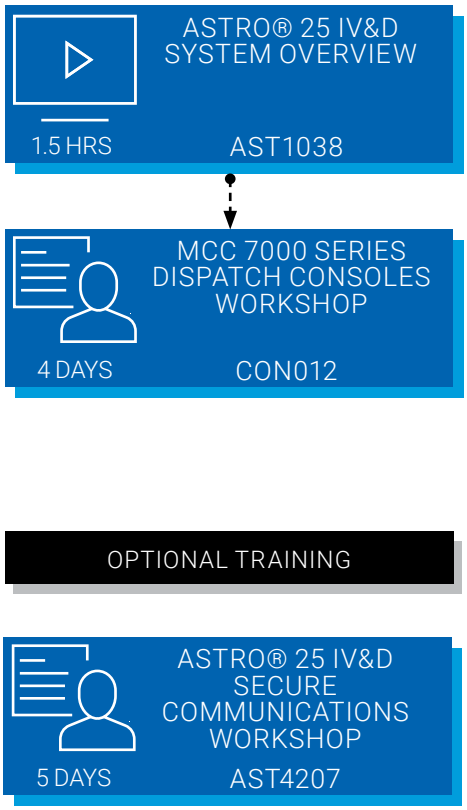
For general information contact the Europe, Middle East and Africa Education Services Help Desk at: training.emea@motorolasolutions.com

ASTRO® 25 SYSTEM ADMINISTRATOR

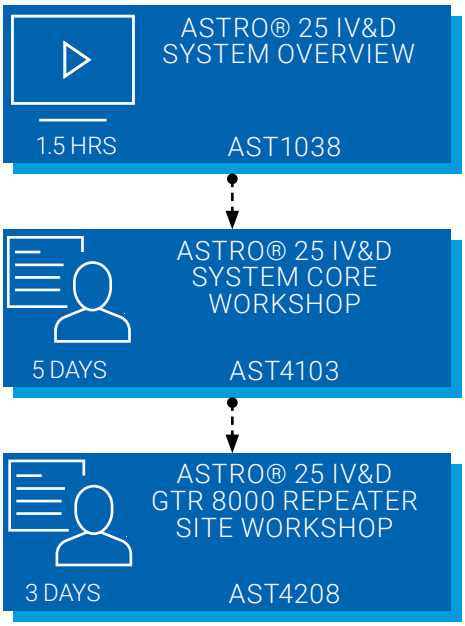


OPTIONAL TRAINING

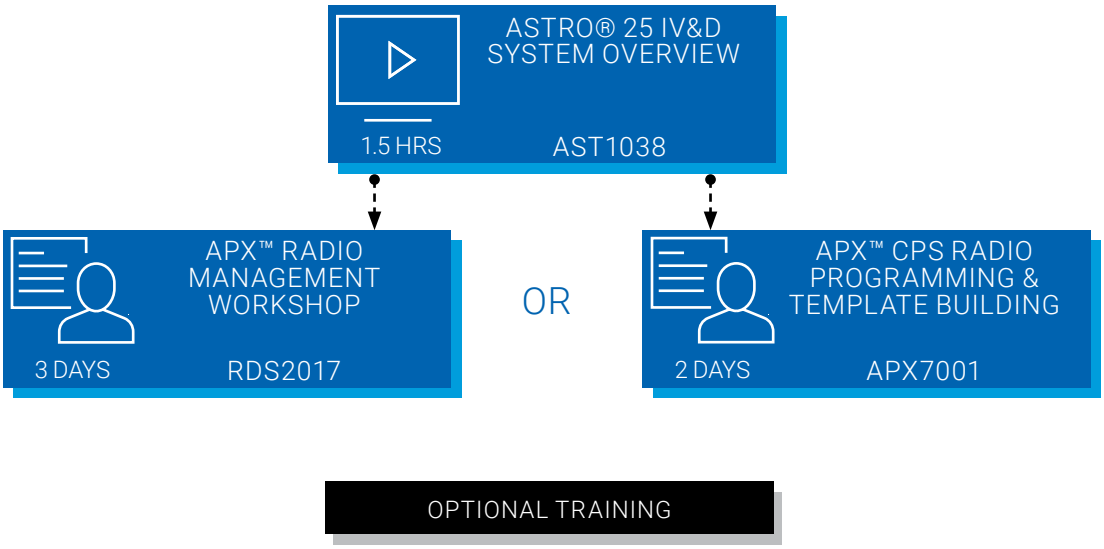
ASTRO® 25 DISPATCH TECHNICIAN



ASTRO® 25 SITE TECHNICIAN



ASTRO® 25 SUBSCRIBER TECHNICIAN



ASTRO® 25 IV&D SYSTEM OVERVIEW

1.5 HRS AST1038

COURSE OVERVIEW
The ASTRO®25 IV&D System Overview course will provide participants with knowledge and understanding of the ASTRO 25 system. The system architecture, components, and features will be explained. This course does not cover K Core material. For more information on K Core, please refer to AST3038.

TARGET AUDIENCE
This course is intended for Professionals who need to get an understanding of the architecture, components, and features of the ASTRO®25 IV&D System.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the general architecture of an ASTRO 25 Radio System.
- List key features available in the ASTRO 25 Zone Core.
- Define components of the ASTRO 25 system.
- Summarize site components in the ASTRO 25 system.
- Explain the features, capabilities and components of dispatch consoles in the ASTRO 25 system.
- Recognize Mobility and Call Processing in the ASTRO 25.
- Identify applications and features for managing the ASTRO 25 system.

RECOMMENDED PREREQUISITE
None

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR WORKSHOP

5 DAYS AST4102

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

TARGET 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 ASTRO® 25 topologies.
- Describe ASTRO® 25 traffic flows. Describe TCP/IP addressing in an ASTRO® 25 network.
- Configure switches and verify switch operation.
- Configure routers and verify router operation.
- Compare Motorola GGM 8000 routers and Juniper routers.
- Perform common maintenance tasks for switches and routers.
- Describe IP Multicast addresses and talkgroup operation.
- Describe network management functions and applications.
- Describe Information Assurance in ASTRO® 25.
- Describe extended topologies such as the Data Subsystem and ISSI.

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- ACT101E - Bridging the Knowledge Gap – System Administrators
- NST762 - Networking Essentials in Communication Equipment
- AST4104 - ASTRO® 25 Systems Applied Networking
- AST1038 - ASTRO® 25 IV&D System Overview

ASTRO® 25 IV&D SYSTEM CORE WORKSHOP

5 DAYS AST4103

COURSE OVERVIEW
The ASTRO® 25 IV&D with ASTRO® 25 System Core course teaches advanced 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.

TARGET AUDIENCE
ASTRO® 25 System Core Master Site Technicians

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

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- ACT100E or ACT101E - Bridging the Knowledge Gap
- NST762 - Networking Essentials in Communication Equipment
- AST4104 - ASTRO® 25 Systems Applied Networking
- AST1038 - ASTRO® 25 IV&D System Overview

ASTRO® 25 IV&D SECURE COMMUNICATIONS WORKSHOP

5 DAYS AST4207

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

TARGET AUDIENCE
System Technicians, System Administrators, Technical System Managers

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Plan, organise, and implement Secure Communications in an ASTRO® 25 IV&D system.
- Install and configure a Key Management Facility (KMF) system and related components.
- Demonstrate centralised 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.

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- ACT100E - Bridging the Knowledge Gap - Technicians
- NST762 - Networking Essentials in Communication Equipment

ASTRO® 25 IV&D GTR 8000 REPEATER SITE WORKSHOP

3 DAYS AST4208

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.

TARGET 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.

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- ACT101E - Bridging the Knowledge Gap - Technicians
- NST762 - Networking Essentials in Communication Equipment
- AST4104 - ASTRO® 25 Systems Applied Networking
- AST1038 - ASTRO® 25 IV&D System Overview

ASTRO® 25 IV&D IP BASED DIGITAL SIMULCAST WORKSHOP

3 DAYS AST4217

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.

TARGET AUDIENCE
Simulcast Site Technicians

COURSE OBJECTIVES
After completing the course the participant will be able to:
- Recognize the flow of message and control data within an ASTRO® 25 IV&D IP Simulcast subsystem.
- Identify the major components and connections within an ASTRO® 25 IV&D IP Simulcast subsystem and remote sites.
- Recognize how calls are processed within an ASTRO® 25 IV&D IP Simulcast subsystem.
- Perform maintenance and troubleshooting of select components in an ASTRO® 25 IV&D IP Simulcast subsystem.

RECOMMENDED PREREQUISITE
Completion of the following courses or equivalent experience:
- ACT100E - Bridging the Knowledge Gap – Technicians
- NST762 - Networking Essentials in Motorola Communications Equipment
- AST4104 - ASTRO® 25 Systems Applied Networking

REQUIRED PREREQUISITES
- AST1038 - ASTRO® 25 IV&D System Overview

DATA SERVICES ADMINISTRATION

3 DAYS AST0176

COURSE OVERVIEW
This course familiarizes participants in how the Data subsystem performs in ASTRO. We will also provide the steps to operate and maintain a customer's IMW system within their Motorola Solutions system (ASTRO).

TARGET AUDIENCE
System Administrators, Console Technicians

COURSE OBJECTIVES
After completing the course the participant will be able to:
- Explain how the Data subsystem performs in ASTRO®.
- Explain the difference between the Radio Network Interface (RNI) and the Customer Enterprise Network (CEN).
- Describe how Firewall functions in Data Communications.
- Explain IMW's role in the ASTRO Data subsystem.
- Configure the IMW server and manage IMW services.
- Describe how Over-the-Air-Programming (OTAP) is processed by the RNI and CEN.
- Describe how Over-the-Air-Rekeying (OTAR) is process in RNI and CEN.

RECOMMENDED PREREQUISITE
Professionals responsible for the operation and maintenance of a customer's IMW system within their Motorola Solutions systems (ASTRO)

ASTRO® 25 SYSTEMS FLEETMAPPING

2 DAYS RDS1017

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.

TARGET AUDIENCE
This course is intended for technical support staff who are involved in planning and mapping of an ASTRO® 25 IV&D radio system.

COURSE OBJECTIVES
By the end of the 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.

RECOMMENDED PREREQUISITE
None

ASTRO® 25 IV&D RADIO AUTHENTICATION

2 DAYS AST2038

COURSE OVERVIEW
This course provides an understanding of the Radio Authentication process, its features and components. Students will learn about keys used in Radio Authentication and how to provision and distribute them using the AuC Client GUI; they will also learn how to enable Radio Authentication in the System and manage subscribers from the AuC Client.

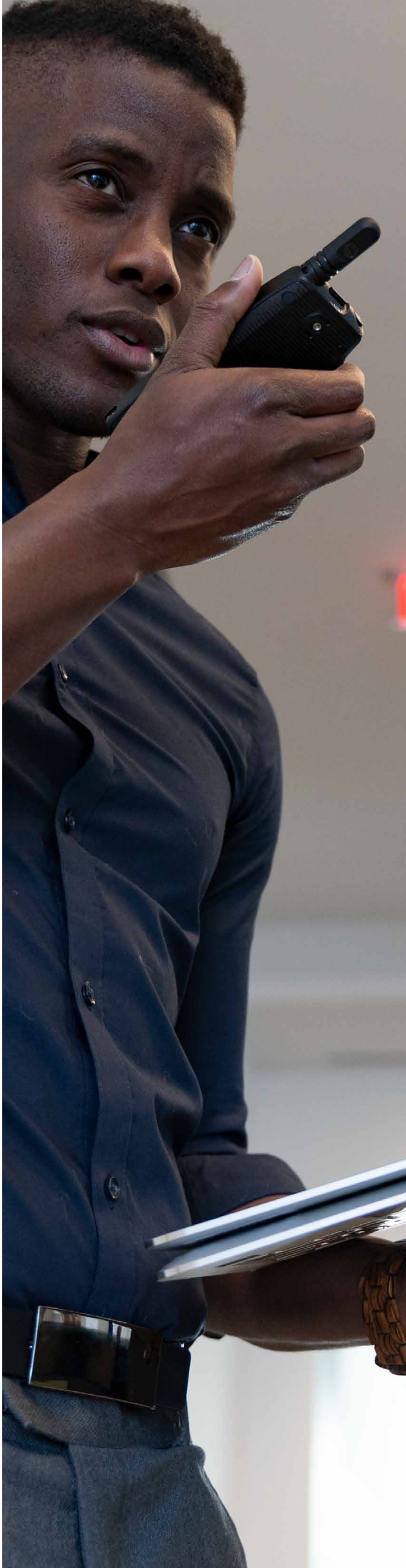
TARGET AUDIENCE
Customer Administrators or Technicians.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the Radio Authentication process, its features and components.
- Discuss the Keys used in Radio Authentication.
- Provision and Distribute relevant Keys.
- Describe the AuC Client GUI.
- Enable Radio Authentication in the System.
- Configure the KVL 5000 for Radio Authentication.
- Manage Subscribers from the AuC Client.
- Discuss Radio Authentication functionality in a DSR system.

RECOMMENDED PREREQUISITE
Completion of the following course(s) or equivalent experience:
- Radio System Administration or equivalent knowledge of the Provisioning Manager, ZoneWatch, Historical Reports, ATIA Log Viewer, Unified Event Manager (UEM), Unified Network Configurator (UNC).

REQUIRED PREREQUISITES
Access to customer ASTRO® 25 Radio System, AuC Server/Client is required. Customer to provide working Motorola Solutions' portable radio(s) capable of placing calls on the System, access to working AuC client/server along with admin login credentials, access to a working KVL4000 key loader that can upload keys to the AuC server.

PRIVATE BROADBAND



WAVE PTX OVERVIEW

0.75 HRS PTT0001E

COURSE OVERVIEW
In this course, you will get acquainted with the WAVE PTX solution, learn how it connects teams across devices, networks, and locations, and see how its components enable organizations to stay connected.

TARGET AUDIENCE
This course is intended to those who would like to learn about the WAVE PTX solution, its benefits, and components.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain the benefits of Push-to-Talk communication.
- Match various roles within an organization to the right WAVE PTX solution.
- Recall WAVE PTX features and optional packages.
- Illustrate the WAVE PTX Architecture and LMR Interoperability.
- Recognize the components of WAVE PTX and know their features.
- Access additional training materials, brochures, and data sheets.
- Get the support your need for your solution.

RECOMMENDED PREREQUISITE
None

WAVE PTX ADMIN PORTAL: END-USER TRAINING

1 HR PTT0004E

COURSE OVERVIEW
This course provides an overview of the WAVE PTX Admin Portal for commercial markets, its key features, and roles within the portal. It includes clickable software simulations showing basic operations that can be performed at the Distributor-, Partner- and Customer-level.

TARGET AUDIENCE
Distributors who use the Admin Portal to add and manage Partners in the commercial marker; Partners who use the Admin Portal to add and manage customers in the commercial market; commercial customers who use the Admin Portal to manage subscriptions, and add or manage users and devices.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Navigate the WAVE PTX Admin Portal.
- Add and manage partners from the distributor level.
- Add and manage customers from the partner level.
- Add and manage partner employees from the partner level.
- Manage subscriptions and licenses.
- Add and manage customer employees.
- Register and manage TLK and Evolve devices.
- Create and manage mobile, tablet, and dispatch users.
- Create and manage standard, dispatch, and broadband talkgroups.

RECOMMENDED PREREQUISITE
None

WAVE PTX R11.2 MOBILE APPLICATION: END-USER TRAINING

2.5 HRS PTT0006E

COURSE OVERVIEW
During this course, you will perform key tasks in the WAVE PTX Mobile Application in order to communicate with contacts and talkgroups.

TARGET AUDIENCE
WAVE PTX users who want to get hands-on practice with the features and operation principles of the WAVE PTX Mobile Application.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Navigate and use the WAVE PTX Mobile Application in Standard and PTT Radio modes.
- Initiate and receive PTT calls to and from contacts and talkgroups.
- Initiate and receive video streaming sessions to and from contacts and talkgroups.
- Use multimedia messaging to exchange text messages and files.
- Take advantage of emergency features.
- Perform user check and monitoring.

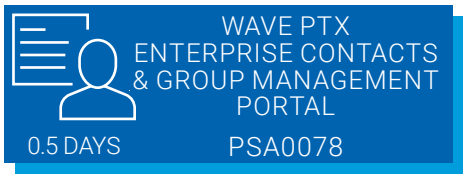
RECOMMENDED PREREQUISITE
None

COURSE OVERVIEW
The course provides a detailed description and explanation to the parameters required for provisioning new subscribers on WAVE PTX platform.

TARGET AUDIENCE
Personnel responsible for provisioning and managing the end users on the WAVE platform.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Understand the concepts of Push-to-Talk
- Provision individual subscribers on WAVE platform
- Modify individual subscribers data
- Delete subscription
- View the features enabled for individual subscribers
- Select the feature packages as required by individual subscribers

RECOMMENDED PREREQUISITE
None



COURSE OVERVIEW
The course is designed for the corporate/ enterprise/agency administrator's responsible to manage the end users and their associated groups in their corporate/ enterprise/agency. Discussion and explanation about certain features that can be enabled using CAT portal for the subscribers provisioned corporate/ enterprise/agency on WAVE PTX platform.

TARGET AUDIENCE
Personnel responsible for provisioning and managing corporate (enterprise) contacts and groups for the end users on the WAVE PTX platform.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Manage contacts at an enterprise level for individual subscribers
- Create Talkgroups at an enterprise level
- Create User Profiles and add them to users
- Create Group Profiles and assign permissions
- Manage and assign features for individual subscribers
- Manage external subscribers

RECOMMENDED PREREQUISITE
None

COURSE OVERVIEW
This course provides a detailed description of handset client usage for enterprise and features (as applicable and enabled at a customer level) on WAVE PTX platform. Topics include activation of handset standard client, usability of features such as IPA, Presence, Private Calls, Group Calls, Broadcast Group calling, PTX messaging and Location features.

TARGET AUDIENCE
End users and Tier-1 engineers responsible for troubleshooting end user's usage experiences.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Understand the Handset Standard client.
- Activate the handset standard client.
- Understand and work on the handset standard client features.
- Make/receive different call types.
- Send/receive multimedia messages.
- Use the Emergency feature options.
- Use the Handset Standard client for Enterprise or Corporate use cases

RECOMMENDED PREREQUISITE
None

COURSE OVERVIEW

This course provides a detailed description of handset PTT Radio client (a.k.a LMR client) usage and features (as applicable and enabled at a customer level) on WAVE PTX platform. Topics include activation of handset PTT Radio client, usability of features such as IPA, Presence, Private Calls, Group Calls, Broadcast Group calling, PTX messaging, Ambient call, Discreet call, Location features and Emergency calling.

TARGET AUDIENCE

End users and Tier-1 engineers responsible for troubleshooting end user's usage experiences.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Differentiate between Handset Standard and Handset PTT Radio client types
- Activate the Handset PTT Radio client type
- Understand and work on the Handset PTT Radio client features
- Make/receive different call types
- Send/receive multimedia messages
- Use the Emergency feature options
- Use and apply the unique features available in Handset PTT Radio client
- Use the Handset PTT Radio client for Public Safety and Emergency Response use cases.

RECOMMENDED PREREQUISITE

None

COURSE OVERVIEW

This course provides a detailed description of Dispatch Console usage and features (as applicable and enabled for dispatch at customer level) on WAVE PTX platform. Topics include activation of Dispatch Console, usability of features such as Maps, Emergency calling, ABDG, Fleet member management, monitoring services, Location services and features, Private Calls, Group Calls, Broadcast Group calling, PTX messaging, Ambient call and Discreet call, status messaging, emergency services.

TARGET AUDIENCE

End users and Tier-1 engineers responsible for troubleshooting end user's usage experiences.

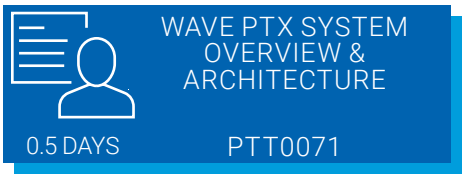
COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Differentiate between Handset clients and Dispatch client types.
- Activate the Dispatch console.
- Understand and work on the Dispatch console and its features.
- Locate and Manage fleet members.
- Make and receive different call types on the Dispatch console.
- Send and receive multimedia messages on the Dispatch console.
- Use the Emergency feature options.
- Use and apply the unique features available in the Dispatch console.
- Use the Dispatch console for Public Safety and Emergency Response use cases.

RECOMMENDED PREREQUISITE

None



COURSE OVERVIEW

This course provides a detailed insight into the customized architecture, components, interfaces, protocols used, port numbers, and virtual elements involved in forming the WAVE PTX platform for Broadband PTT applications and features.

TARGET AUDIENCE

This is a foundation course aimed at all engineering, operations, and technical support groups being trained to support the WAVE PTX network, platform. and services.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Recognize the WAVE PTX product supplied by Motorola Solutions.
- Identify the major components of the WAVE PTX platform.
- Identify different subsystems and discuss the generic WAVE PTX architecture.

RECOMMENDED PREREQUISITE

- Key Organization Network and IT Systems
- Networking Knowledge, Components And Functions

COURSE OVERVIEW

The course is designed to provide a detailed insight into the architecture, components, and virtual elements involved in forming the WAVE Gateway platform for Broadband to LMR interoperability and its features.

TARGET AUDIENCE

This is a foundation course aimed at all engineering, operations, and technical support groups being trained to support the WAVE Gateway network, platform, and services.

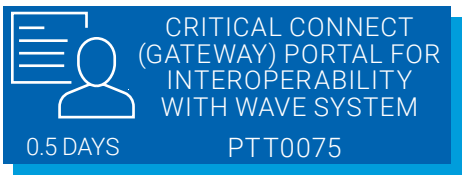
COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Recognize the WAVE Gateway product.
- Identify and understand the functionalities of major components available in the WAVE Gateway platform.
- Identify and understand different subsystems.
- Discuss the generic WAVE Gateway architecture.
- Locate technical reference documentation providing further detail.

RECOMMENDED PREREQUISITE

- Key Organization Network and IT Systems
- Networking Knowledge, Components And Functions
- Basic knowledge on respective radio networks such as ASTRO®, DIMETRA™, and MOTOTRBO™



COURSE OVERVIEW

The course is designed to explain the onboarding process of an LMR network, devices, users, and application as suited for Gateway platform. This course also explains the patch process between different talkgroups from LMR to LMR and LMR to Broadband networks.

TARGET AUDIENCE

Personnel responsible for configuring, managing, and integrating the LMR network with the broadband network. Personnel responsible for creating and managing talkgroup patches from an Agency/ customer's end.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Configure and integrate the existing LMR network with the Broadband network.
- Add new LMR devices, talkgroups, and applications as suitable.
- Configure logins for customer/agency, create new data access controls.
- Monitor the LMR interfaces and networks.
- Create/delete new patches by customer/ agency.

RECOMMENDED PREREQUISITE

Knowledge on basic functionalities and features on WAVE and WAVE Gateway Platform.

MOTOROLA VIDEO SECURITY AND ACCESS CONTROL

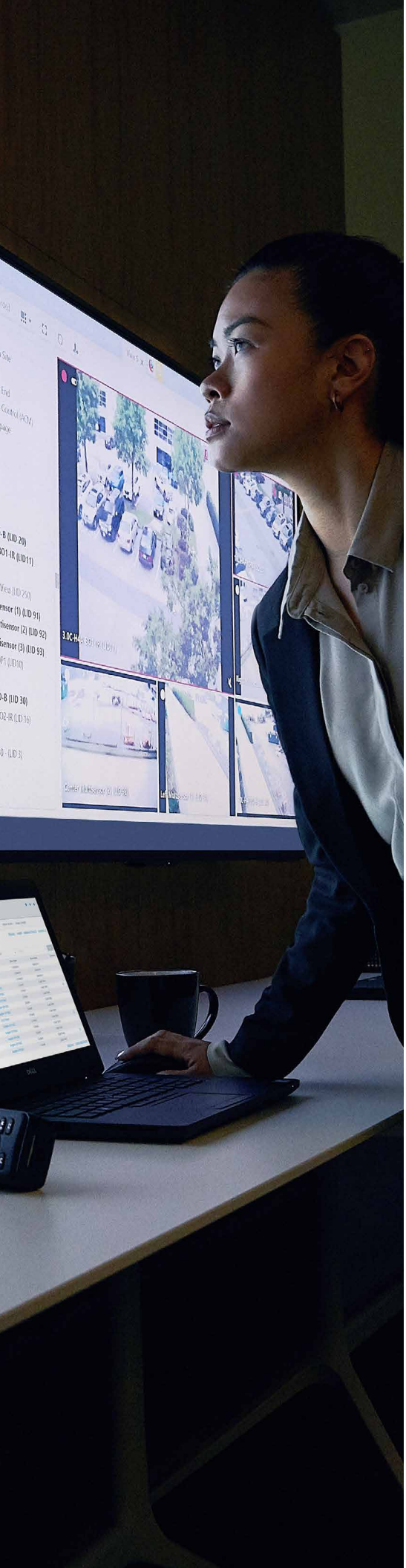
Motorola Solutions offers a fixed video security ecosystem to meet both mission-critical and business-critical applications. We build on this strong foundation to bring new and improved surveillance and security solutions to life with products and systems that security professionals need —driven by meaningful innovation. And we're moving ahead with best-in-class technologies designed from the ground up, specifically for professional applications that provide superior performance, reliability, and value.

The MSI Video Security and Access Control Training is dedicated to security professionals who want to keep up with ever-changing technology, want to learn about new products and systems, and want to stay current with industry best practices. With courses designed by subject matter experts, our instructor-led training combined with online courses deliver unparalleled education for today's video security professionals. Whether you are responsible for installing, designing, or selling, you'll find the right course for you.

Accessing and enrolling in training

Access Video Security & Access Control Training through the VS&A Tool Hub. For questions or to register for an account, email trainingvideoandaccess@motorolasolutions.com.

Visit the Training Center to browse our curriculum that covers video security and access control products and services.



MOBILE VIDEO

VIDEOMANAGER SYSTEM ADMINISTRATOR

0.5 DAYS PSA0036

COURSE OVERVIEW

During this course, you will gain the knowledge required to perform day-to-day administration duties within VideoManager user, device and media management software.

TARGET AUDIENCE

This course is intended for System administrators, support staff, IT support and anyone who needs to support the smooth operation of the mobile video system.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Manage system users.
- Manage mobile video cameras (body-worn or in-car) and their associated hardware.
- Monitor, analyse and control system performance.

RECOMMENDED PREREQUISITE

The person attending understands their organisational policies in relation to mobile video and working within VideoManager.

VIDEOMANAGER USER TRAINING

0.5 DAYS PSA0030

COURSE OVERVIEW

During this course, you will learn how to use the VideoManager software suite to identify videos of interest that should be preserved as evidence, create incidents, and share evidence with the appropriate parties.

TARGET AUDIENCE

This course is for anyone tasked with the responsibility of responding to requests to create body-worn video evidence, including those who need to convert videos into evidential incidents and those who need to share incidents with officers or other third parties, such as within the judicial system.

COURSE OBJECTIVES

By the end of the course, the student will be able to:

- Navigate VideoManager menus fluently and follow efficient workflows for evidence management
- Locate and review body-worn video and preserve videos of evidential interest
- Import additional evidential material (option)
- Prepare video evidence within an incident
- Share videos and incidents as per your organisational policy.

RECOMMENDED PREREQUISITE

The person attending understands their organisational policies in relation to handling video evidence.

CONTACT US

VISIT OUR GLOBAL EDUCATION WEBSITE:

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