PRODUCT AND SYSTEM TECHNICAL TRAINING COURSE CATALOGUE

MOTOROLA SOLUTIONS - WORLDWIDE EDUCATION

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. Education Services, 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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EDUCATION SERVICES

WorldWide 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 Education Packages, offering a selection of essential training activities, to the most personalized 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.

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

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

QUALITY ASSURANCE: THE TPMA FRAMEWORK

MOTOROLA SOLUTIONS WORLDWIDE 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 learning.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!"

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

"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 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."

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EDUCATION PACKAGES

Motorola Solutions Education Packages have been built by our technical education experts, to provide you a simpler way to select the right learning activities from our extensive training portfolio. These packages are all designed considering four vital aspects:

- Your Motorola Solutions Infrastructure & Devices

- The Level of Support provided by Motorola Solutions

- The tasks undertaken by your team, and

- The roles of the professionals in charge of those tasks

Behind these packages there are Education Services professionals whose aim is to fully prepare your team to achieve desired organisational efficiency and outcomes by ensuring that they have the knowledge, skill and competency needed to effectively interact with your Motorola Solutions technology investment.

If you wish to customise your Motorola Solutions training strategy, ask our Professional Education Services team to analyse your specific technical and end-user training needs and gaps. Please work with your Motorola Solutions account representative to request this professional service.

Let Motorola Solutions Education Services help you ensure that your organisation provides effortless and reliable communications, and keep your lifeline stronger than ever!

DIMETRA™ INFRASTRUCTURE EDUCATION PACKAGES

COMPLEMENT EDUCATION PACKAGE

Prepare your team to operate your DIMETRA™ Solution, achieving optimal organisational efficiency.

TOPICS

System Overview, Upgrade Differences, MyView Portal, Dispatch End-User Best Practices, Device End-User Best Practices

SUPPLEMENT EDUCATION PACKAGE

Prepare your team to operate and administer your DIMETRA™ Solution, achieving optimal organisational efficiency.

TOPICS

System Overview, Fleetmapping, Network Management, Dispatch End User Best Practices, Upgrade Differences, Device End-User Best Practices, MyView Portal

SUPPORT EDUCATION PACKAGE

Prepare your team to operate, administer, and maintain your DIMETRA™ Solution, achieving optimal organisational efficiency.

TOPICS

System Overview, Network Management, Consoles, Base Stations, Fleetmapping, Dispatch End-User Best Practices, Device End-User Packages

Talk with your Motorola Solutions contact for a quote, or email us at training.emea@motorolasolutions.com for more information on how to sign your team up for one of our Education Services Packages.

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training.emea@motorolasolutions.com

SAMPLE PACKAGE

**DIMETRA™ INFRASTRUCTURE
SUPPLEMENT EDUCATION PACKAGE**

This Education Package aligns with the Infrastructure ADVANCED Services Package

DIMETRA™ SYSTEM OVERVIEW

MYVIEW PORTAL OVERVIEW

DIMETRA™ SYSTEM FLEETMAPPING

DIMETRA™ CONFIGURATION & ADMINISTRATION

DIMETRA™ FAULT MANAGEMENT

LIFECYCLE MANAGEMENT

CONSOLE ADMINISTRATOR
& DISPATCH END-USER TRAINING

RADIO END-USER TRAIN THE TRAINER

WAVE™ ADMINISTRATION & END-USER TRAINING

DIMETRA™ SECURE COMMUNICATIONS

DIMETRA™ PERFORMANCE MANAGEMENT

EXECUTIVE OVERVIEW

LEGEND:
– Foundation
– Administration
– Maintenance
– Device & Console Best Practices
– Optional

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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.

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

OPERATOR TRAINING

With this option, the users within your organization are trained by a Motorola 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

COURSES FOR CONSOLE PRODUCTS

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

COURSES FOR MOBILES & PORTABLES

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

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.

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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 customized to suit your requirements, contact us now to start working together on your training strategy.

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, mobile-enabled components grouped into related topics..

UNDERSTANDING THE ICONS

LIVE TRAINING
VIRTUAL / FACE-TO-FACE TUTOR-LED TRAINING

SELF-PACED TRAINING
ONLINE COURSES / MICROLEARNING

EXAM

Where to start? Our training paths will let you know the starting point and milestones of your development, so you can make sure you acquire the right knowledge to make the most of each step of your learning process.

LEARNING EXPERIENCE PORTAL

AN INTERACTIVE PLATFORM… DESIGNED FOR YOU! THE LXP IS YOUR VALUABLE RESOURCE TO SEE THE LATEST COURSES, DESCRIPTIONS, REQUIREMENTS, DATES AND LOCATIONS.

Use the search box and filters feature to quickly and easily search for training or documentation.

View your history and upcoming training on your personalized dashboard.

Receive reminder notifications of upcoming training or changes to your training.

Easily locate and download documents plus stay up-to-date with training news and announcements.

http://learning.motorolasolutions.com

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

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

# HOW TO ACCESS THE LEARNING EXPERIENCE PORTAL

If you are a Motorola Solutions Customer who already has a Motorola Solutions Login ID, you can go to the "Enrol in a course" section for further instructions.

SET UP A NEW USER ACCOUNT AND PASSWORD

learning.motorolasolutions.com

- Visit: **https://learning.motorolasolutions.com**
- Click "Register"
- Fill out all the required information on the form; preferably, use a company email address during the registration process (if you are a MSI Customer with an established 10-digit Motorola Customer Account Number, please enter your Company Name in the form)
- Click "Submit"
- You will receive a confirmation of your submission
- You will next receive further information to activate your account (Up to 5 business days)

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

learning.motorolasolutions.com
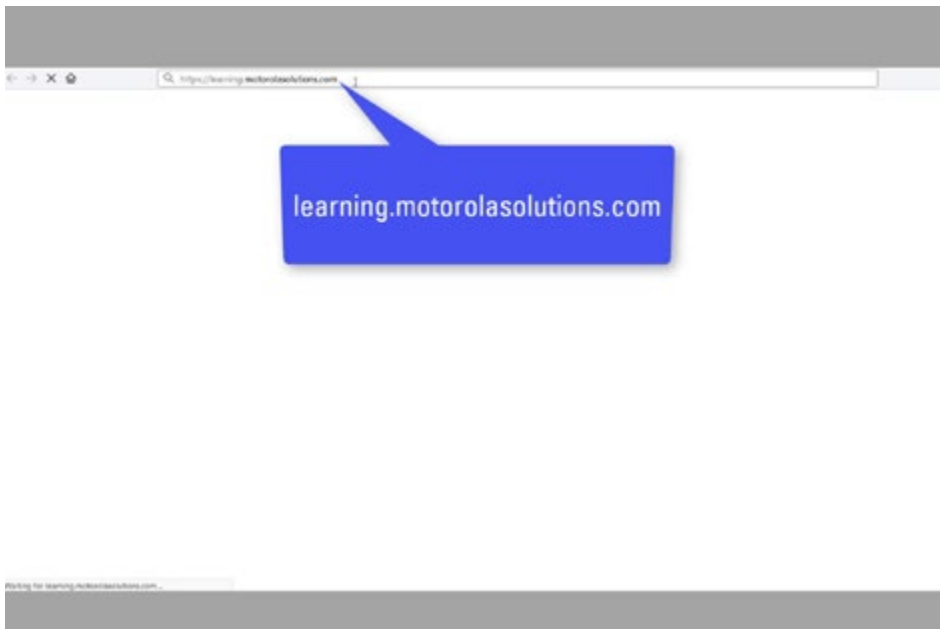
- Log in to the LXP: **https://learning.motorolasolutions.com**
- Click on "LOG IN"
- **Enter your Log In ID and Password and Click "LOG IN"**
- If you have forgotten your Log In or Password click on "Forgot Log In ID" or "Forgot Password"
- Find a training course by clicking "Browse Training" at the top of the screen Or use "Search Catalog" at the top of the screen

GENERAL INFORMATION
For information on prerequisites and to register for courses visit the LXP at:
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training.emea@motorolasolutions.com

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.

Note: Invoices are available only when using Purchase Orders.

FOR QUESTIONS AND ASSISTANCE

Call the Education Help Desk
Monday – Friday,
9:00 a.m. – 5:30 p.m. Central European Time
or email us at:
training.emea@motorolasolutions.com

CONTACT MOTOROLA SOLUTIONS EUROPE, MIDDLE EAST AND AFRICA

AUSTRIA [GERMAN]	0800 281 195	**ITALY** [ITALIAN]	800 791 276	**SOUTH AFRICA** [ENGLISH]	0800 994 886
DENMARK [ENGLISH]	80 253 546	**NETHERLANDS** [ENGLISH]	0800 024 9893	**SPAIN** [SPANISH]	9009 416 84
FRANCE [FRENCH]	0800 914 532 (+33 176 775 609)	**NORWAY** [ENGLISH]	800 148 02	**UKRAINE** [UKRAINIAN]	0-800503574
GERMANY [GERMAN]	0800 724 6872 (+49 692 222 1568)	**POLAND** [POLISH]	00800 121 5772	**UNITED ARAB EMIRATES** [ENGLISH]	8000 3570 4387
ISRAEL [HEBREW]	180 931 5818	**SAUDI ARABIA** [ENGLISH]	800 811 0523	**UNITED KINGDOM** [ENGLISH]	0800 731 3496 (+44 207 019 0461)

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.

For more information about our Cancellation Policy, visit https://learning.motorolasolutions.com/content/cancellation-policy

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.

Find more information about Terms & Conditions, visit https://learning.motorolasolutions.com/content/terms-and-conditions

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.

GENERAL INFORMATION

For information on prerequisites and to register for courses visit the LXP at:
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training.emea@motorolasolutions.com

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 introduction	Stage & Deploy	Operate	Maintain	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	Bridging the Knowledge Gap - Technicians	•						•	
	● ACT101E	Bridging 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	•					•	•	
	● SRV1010	Server and Virtualization Foundation	•					•	•	
	● AST4104	ASTRO® 25 Systems Applied Networking	•					•	•	
	● DMT1108	DIMETRA™ Systems Applied Networking	•					•	•	
	● DMT1086	System Engineering Overview		•					•	•
	● TGTC08	RF Fundamentals			•	•	•	•	•	
	● TGTC04	DIMETRA™ X Core Fleetmapping Workshop				•	•	•	•	
DIMETRA™ Systems	● DMT0057	Introduction to Trunked Radio Concepts				•	•	•	•	
	● DMT1114	DIMETRA™ Express Security Features: Installation, Configuration, and Maintenance			•	•	•	•	•	
	● DMT9200	DIMETRA™ X Core D9.2 System Overview		•					•	•
	● DMT9201	DIMETRA™ X Core D9.2 Configuration and Administration Workshop			•	•	•	•	•	
	● DMT9202	DIMETRA™ X Core D9.2 Fault Management Workshop				•	•	•	•	
	● DMT9203	DIMETRA™ X Core D9.2 Performance Management Workshop				•	•	•	•	
	● DMT9204	DIMETRA™ X Core D9.2 Troubleshooting and Maintenance Workshop				•	•	•	•	
	● DMT9205	DIMETRA™ X Core D9.2 Air Interface Encryption, Authentication, and Provisioning				•	•	•	•	
	● DMT9206	DIMETRA X Core D9.2 Network Security				•	•	•	•	
	● DMT9207	DIMETRA™ X Core D9.2 Dispatch Communications Server Workshop			•	•	•	•	•	
	● DMT9208	DIMETRA X Core D9.2 MSO Recovery and Restoration Workshop				•	•	•	•	
	● DMT2094	DIMETRA™ X Core Secure Communications Workshop				•	•	•	•	
	● DMT9214	DIMETRA™ X Core D9.2 Alias Server Installation, Configuration & Troubleshooting Course				•	•		•	
	● DMT9215	DIMETRA™ D9.1 to D9.2.0 Lifecycle Management Customer Implementation Training			•	•	•			
	● DMT9216	DIMETRA™ X Core Edge Installation, Configuration, and Administration Workshop			•	•	•	•	•	
	● DMT0036	DIMETRA™ Express Installation, Configuration and Maintenance Workshop			•	•	•	•	•	
	● DMT0070	DIMETRA Express Advanced Workshop			•		•	•	•	
Console courses	● DMT9211	DIMETRA™ X Core D9.2 MCC 7500 Admin Workshop				•	•	•	•	
	● DMT9212	DIMETRA™ X Core D9.2 MCC 7500 Operator Workshop				•	•	•	•	•
	● DMT9213	DIMETRA™ X Core D9.2 MCC 7500 Install, Config, Troubleshooting & Maintenance			•	•	•	•	•	
	● DMT0072	DCX9000 for DIMETRA Express Workshop		•	•	•	•	•	•	•
	● DMT1007	DataVoice Libra Recorder System for DIMETRA				•	•	•	•	
	● DMT1313	DataVoice Logging End User Course				•	•	•	•	

● Live training
● Self-paced training

For information on prerequisites and to register for courses visit the LXP at:
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Portfolio	Type	Course code	Course title	Foundations	Product/System Introduction	Stage & Deploy	Operate	Maintain	Administrator	Technician	End User
Subscribers	Self-paced	DMT0029	ADVISOR TPG2200 TETRA Two-Way Pager End User Operator			•	•				•
	Self-paced	DMT7000	MXP7000 Overview	•			•		•	•	•
	Self-paced	DMT7001	MXM7000 Overview	•			•		•	•	•
	Self-paced	DMT7004	MXP7000 & MXM7000 Setup and Provisioning				•		•	•	
	Self-paced	PCT0115	MOTOTRBO CPS 2.0 Programming				•	•	•	•	
	Self-paced	PCT1032	MOTOTRBO Radio Management 2.0 Configuration Mode			•	•		•	•	
	Self-paced	AST2003	APX Radio Management Overview		•					•	
	Live	DMT0033	ST7500 End User Operator				•	•	•	•	•
	Live	DMT1054	MTP3000 Series End User Operator				•	•	•	•	•
	Live	DMT1068	MTP6000 Series End User Operator				•	•	•	•	•
	Live	DMT1069	MTP8000Ex Series End User Operator				•	•	•	•	•
	Live	DMT1070	MTM5000 Series End User Operator				•	•	•	•	•
	Live	DMT1083	ST7000 End User Operator				•	•	•	•	•
	Live	DMT6003	MXP600 End User Operator				•	•	•	•	•
	Live	DMT7002	MXP7000 End User Operator				•				•
	Live	DMT7003	MXM7000 End User Operator				•				•
	Live	DMT7005	MXP7000 & MXM7000 Setup and Provisioning (ILT)		•				•	•	
	Live	TTER01PLUS	TETRA Terminal Programming Course (CPS Plus)				•	•	•	•	
	Live	DMT1050	Integrated Terminal Management (Remote Programming)		•		•	•	•	•	
	Live	TMSC04	TRACES Workshop				•	•	•	•	
	Live	DMT1107	TETRA Subscriber Operator, Programming and Maintenance				•	•	•	•	•
	Live	TBO300	MOTOTRBO Subscriber & Repeater Technical Service Academy				•	•	•	•	
	Live	PCT2022	MOTOTRBO Radio Management 2.0 Workshop			•	•		•	•	
	Live	RDS2017	APX™ Radio Management Workshop			•	•	•	•	•	
	Live	APX7001	APX CPS Programming and Template Building		•	•	•				
	Live	APX010	APX™ Technical Subscriber Academy		•	•		•	•	•	•
MOTOTRBO™	Self-paced	PCT1046	MOTOTRBO Capacity Max Theory of Operation			•	•	•	•	•	
	Self-paced	PCT1047	MOTOTRBO Capacity Max Technical Overview			•	•	•	•	•	
	Self-paced	PCT1066	MOTOTRBO IP Site Connect and Capacity Plus Technical Overview		•	•	•		•	•	
	Self-paced	PCT0147	Capacity Max System Server Upgrade			•	•		•	•	
	Live	CEDMEL2000	MOTOTRBO System Introduction for Technicians		•	•			•	•	
	Live	PCT2023	MOTOTRBO IP Site Connect and Capacity Plus Theory of Operations and Design			•			•	•	
	Live	PCT3014	MOTOTRBO IP Site Connect and Capacity Plus Systems Workshop			•	•	•	•	•	
	Live	PCT2010	MOTOTRBO™ Capacity Max Design and Deploy			•	•	•	•	•	
	Live	PCT2005	SmartPTT Plus			•	•		•	•	
	Live	PCT2006	TRBONet Plus Essentials and Deployment			•	•	•	•	•	
	Self-paced	PCT3031	TRBOnet Plus for Capacity Max			•	•	•	•	•	

● Live training
● Self-paced training

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training.emea@motorolasolutions.com

Motorola Solutions - Product and System Technical Training Course Catalogue | Europe, Middle East and Africa

Portfolio	Course code & Type	Course title	Foundations	Product/System introduction	Stage & Deploy	Operate	Maintain	Administrator	Technician	End User
MOTOTRBO™ Ion	PCT0129 (Self-paced)	MOTOTRBO Ion Overview	•				•	•	•	
	PCT0131 (Self-paced)	MOTOTRBO Ion MyView and RadioCentral Overview		•	•			•	•	
	PCT0161 (Self-paced)	MOTOTRBO Ion Features and Services				•	•	•	•	•
	PCT0132 (Live)	RadioCentral MOTOTRBO Ion Workshop				•	•	•	•	•
ASTRO® Systems	AST1038 (Self-paced)	ASTRO® 25 IV&D System Overview	•					•	•	
	AST4102 (Live)	ASTRO® 25 IV&D Radio System Administrator Workshop			•	•	•	•	•	
	AST4103 (Live)	ASTRO® 25 IV&D System Core Workshop		•	•	•	•	•	•	
	AST4207 (Live)	ASTRO® 25 IV&D Secure Communications Workshop			•	•	•	•	•	
	AST4208 (Live)	ASTRO® 25 IV&D GTR 8000 Repeater Site Workshop		•	•	•	•	•	•	
	AST4410 (Live)	ASTRO® 25 IV&D Conventional Core with Configuration Manager Workshop			•	•	•	•	•	
	AST4440 (Live)	ASTRO® 25 IV&D Conventional RF Site Workshop		•	•	•	•	•	•	
	RDS1017 (Live)	ASTRO® 25 Systems Fleetmapping			•	•	•	•	•	
	AST2038 (Live)	ASTRO® 25 Radio Authentication		•	•	•	•	•	•	
GINA	RDS0011 (Live)	GINA Operator Training			•	•	•	•	•	
	RDS0012 (Live)	GINA Administration		•	•	•	•	•	•	
PRIVATE BROADBAND	PTT0001E (Live)	WAVE PTX Overview				•	•		•	
	PTT0004E (Live)	WAVE PTX Admin Portal: End-User Training				•	•			•
	PTT0006E (Live)	WAVE PTX R11.2 Mobile Application: End-User Training				•	•			•
	PSA0077 (Live)	WAVE PTX User Provisioning Portal			•	•	•	•	•	
	PSA0078 (Live)	WAVE PTX Enterprise Contacts and Group Management Portal			•	•	•	•	•	
	PSA0079 (Live)	WAVE PTX Handset Standard Mode			•	•	•	•	•	
	PSA0080 (Live)	WAVE PTX Handset PTT Radio Mode			•	•	•	•	•	
	PSA0081 (Live)	WAVE PTX Dispatch Console and features			•	•	•	•	•	
	PTT0071 (Live)	WAVE PTX System Overview & Architecture			•	•	•	•	•	
	PTT0072 (Live)	WAVE Gateway Overview & Architecture			•	•	•	•	•	
	PTT0073 (Live)	WAVE System Alarms Dashboard			•	•	•	•	•	
	PTT0074 (Live)	WAVE System Field Utilities Tool			•	•	•	•	•	
	PTT0075 (Live)	Critical Connect (Gateway) Portal for Interoperability with WAVE System			•	•	•	•	•	

● Live training
● Self-paced training
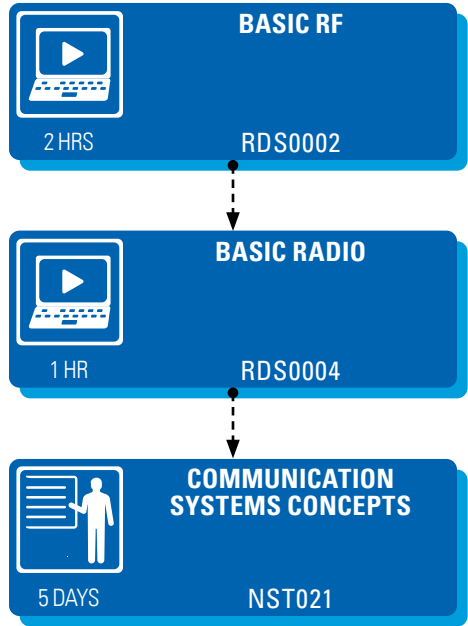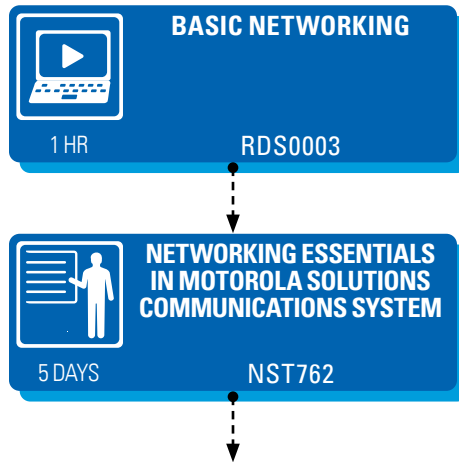
FOUNDATIONAL COURSES

RADIO SOLUTIONS **FOUNDATIONAL**

For information on prerequisites and to register for courses visit the LXP at:
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RF FUNDAMENTALS

RF BASICS / RADIO SYSTEM BASICS

BASIC RF

2 HRS   RDS0002

BASIC RADIO

1 HR   RDS0004

COMMUNICATION SYSTEMS CONCEPTS

5 DAYS   NST021

CURRICULUM COMPLETE

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

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IP/NETWORKING FUNDAMENTALS

BASIC NETWORKING

1 HR   RDS0003

NETWORKING ESSENTIALS IN MOTOROLA SOLUTIONS COMMUNICATIONS SYSTEM

5 DAYS   NST762

CHOOSE <u>ONE</u> OF THE FOLLOWING COURSES BELOW ACCORDING TO YOUR SOLUTION SYSTEM ?

DIMETRA™ SYSTEM

DIMETRA™ APPLIED NETWORKING

5 DAYS   DMT1108

ASTRO® 25 SYSTEM

ASTRO® 25 SYSTEMS APPLIED NETWORKING

5 DAYS   AST4104

CURRICULUM COMPLETE

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

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BASIC RF

2 HRS — RDS0002

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

RF FUNDAMENTALS

5 DAYS — TGTC08

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

BASIC RADIO

1 HR — RDS0004

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

RADIO SOLUTIONS **FOUNDATIONAL**

BASIC NETWORKING
1 HR   RDS0003

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

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

ADVANCED RF: INTRODUCTION
1 HR   RDS2012

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

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

PREREQUISITES
None

ADVANCED RF: PERFORMANCE
1 HR   RDS2013

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

REQUISITE KNOWLEDGE
Completion of the following course or equivalent experience:
- RDS0002 - Basic RF
- RDS2012 - Advanced RF: Introduction

PREREQUISITES
None

RADIO SOLUTIONS **FOUNDATIONAL**

ADVANCED RF: TROUBLESHOOTING

0.5 HRS   RDS2014

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

REQUISITE KNOWLEDGE
Completion of the following courses or equivalent experience:
- RDS0002 - Basic RF
- RDS2012 - Advanced RF: Introduction
- RDS2013 - Advanced RF: Performance

PREREQUISITES
None

COMMUNICATION SYSTEMS CONCEPTS

5 DAYS   NST021

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

TARGET AUDIENCE
Individuals who are interested in the operational concepts 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

REQUISITE KNOWLEDGE
- Knowledge of basic electronics
- Experience using standard communication test equipment

PREREQUISITES
None

NETWORKING ESSENTIALS IN MOTOROLA SOLUTIONS COMMUNICATIONS EQUIPMENT

5 DAYS   NST762

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

REQUISITE KNOWLEDGE
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

PREREQUISITES
None

RADIO SOLUTIONS **FOUNDATIONAL**

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.

REQUISITE KNOWLEDGE
None

PREREQUISITES
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

REQUISITE KNOWLEDGE
Graduate of a basic electronics course

PREREQUISITES
None

SERVER AND VIRTUALIZATION FOUNDATION

4 DAYS · SRV1010

COURSE OVERVIEW
This course will prepare students to install a server and understand the basics of supported virtualization application. The course covers BIOS configuration, installing supported virtualization applications, installing a client and server OS and verifying operations. The course includes hands on lab exercises.

TARGET AUDIENCE
Technical Support Staff who need to understand virtual servers or install servers that utilise Virtual Machines (VM).

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Configure BIOS parameters for server hardware
- Demonstrate basic knowledge of supported virtualization application, including capacity
- Install supported virtualization application on a server platform
- Configure supported virtualization application parameters of supported server hardware
- Install a Client OS and Server OS in a virtual environment
- Verify Server/Client operations in a virtual environment

REQUISITE KNOWLEDGE
Comp-TIA Server+ Certification or equivalent

PREREQUISITES
None

RADIO SOLUTIONS FOUNDATIONAL

DIMETRA™ APPLIED NETWORKING
5 DAYS   DMT1108

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

TARGET AUDIENCE
Technical System Managers and Network Technicians

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Define basic IP network hardware and protocols
- Analyse basic IP network connectivity and addressing
- Define DIMETRA™ Core VLAN/VRRP Operation
- Define DIMETRA™ Network Transport Subsystem
- Review DIMETRA™ Network Management applications
- Define DIMETRA™ Information Assurance
- Define DIMETRA™ Data Subsystem

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

SYSTEM ENGINEERING OVERVIEW
5 DAYS   DMT1086

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

TARGET AUDIENCE
Technical staff that require a System Engineering Overview.

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

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

PREREQUISITES
None

DIMETRA™ X CORE FLEETMAPPING WORKSHOP
3 DAYS   TGTC04

COURSE OVERVIEW
This course includes a system review, basic fleetmapping principles, radio user configuration, dispatch user configuration, mobile radio configuration, text broadcast fleetmapping and system configuration.

TARGET AUDIENCE
Technical staff that require an overview of fleetmapping.

COURSE OBJECTIVES
On completion of this course delegates will be able to:
- Perform the basic planning requirements and complete a simple fleetmap information template
- Write a simple fleetmap based on sample operational requirement information

REQUISITE KNOWLEDGE
Overview of the features and functions of a DIMETRA™ IP system

PREREQUISITES
None

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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

REQUISITE KNOWLEDGE

None

PREREQUISITES

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

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.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience:

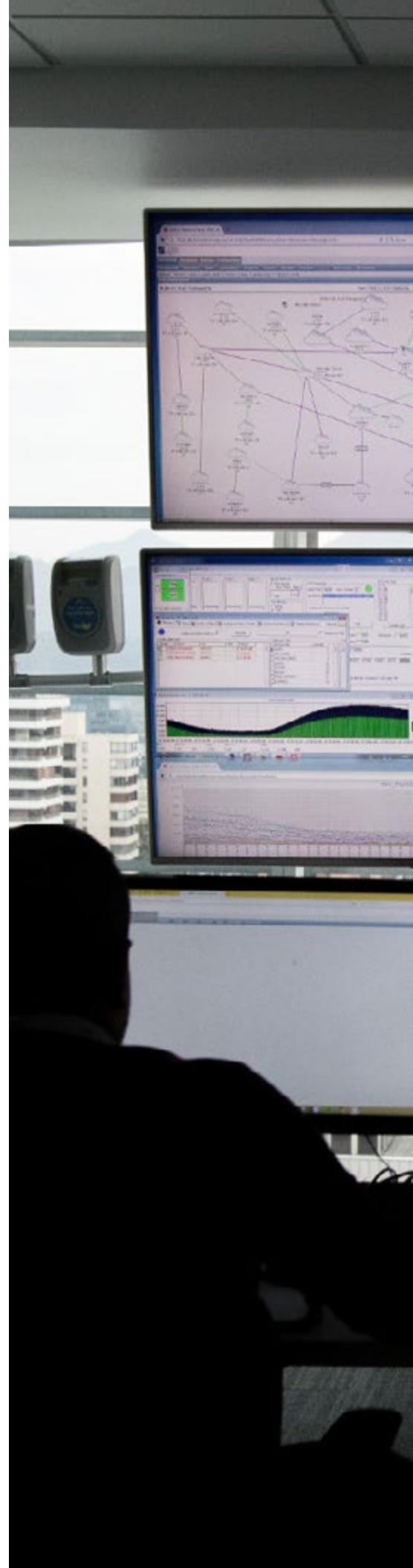- NST762 Networking Essentials in Motorola Communications Systems

PREREQUISITES

None

DIMETRA™ SYSTEMS COURSES

DIMETRA™ SYSTEM TRAINING IS ALSO AVAILABLE IN PREVIOUS RELEASES, PLEASE CONTACT MOTOROLA SOLUTIONS FOR MORE INFORMATION.

RADIO SOLUTIONS **DIMETRA SYSTEMS**
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DIMETRA™ MSO SYSTEM ENGINEER

DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW
3 DAYS — DMT9200

DIMETRA™ X CORE D9.2 CONFIGURATION AND ADMINISTRATION WORKSHOP
4 DAYS — DMT9201

DIMETRA X CORE D9.2 NETWORK SECURITY
2 DAYS — DMT9206

DIMETRA™ X CORE D9.2 FAULT MANAGEMENT WORKSHOP
3 DAYS — DMT9202

DIMETRA™ X CORE D9.2 TROUBLESHOOTING AND MAINTENANCE WORKSHOP
5 DAYS — DMT9204

DIMETRA™ X CORE D9.2 PERFORMANCE MANAGEMENT WORKSHOP
3 DAYS — DMT9203

OPTIONAL TRAINING

SECURE COMMUNICATIONS

DIMETRA™ X CORE D9.2 SECURE COMMUNICATIONS WORKSHOP
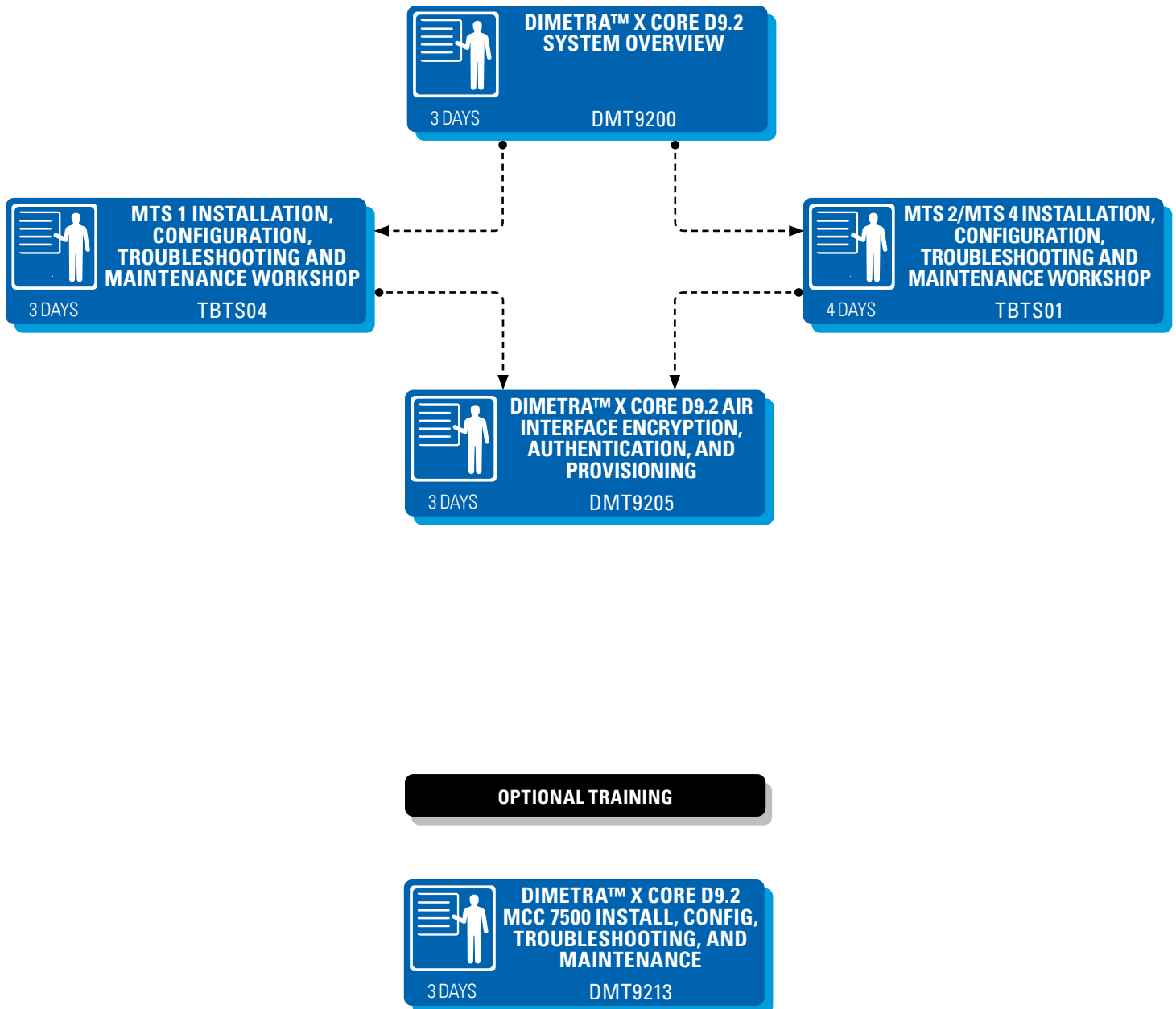3 DAYS — DMT2094

ENCRYPTION, AUTHENTICATION & PROVISIONING

DIMETRA™ X CORE D9.2 AIR INTERFACE ENCRYPTION, AUTHENTICATION, AND PROVISIONING
3 DAYS — DMT9205
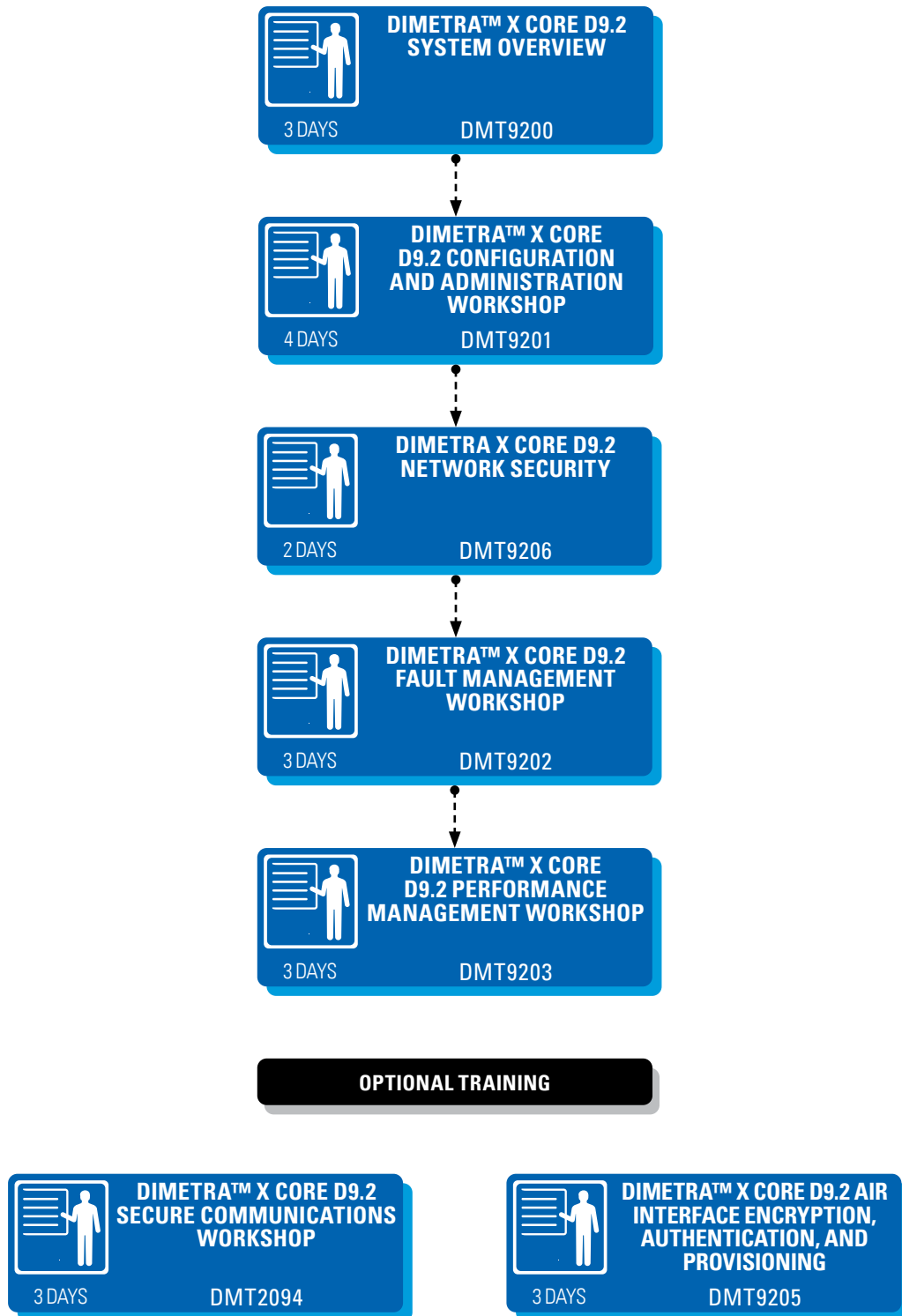
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DIMETRA™ FIELD ENGINEER

DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW
3 DAYS   DMT9200

MTS 1 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE WORKSHOP
3 DAYS   TBTS04

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

DIMETRA™ X CORE D9.2 AIR INTERFACE ENCRYPTION, AUTHENTICATION, AND PROVISIONING
3 DAYS   DMT9205

OPTIONAL TRAINING

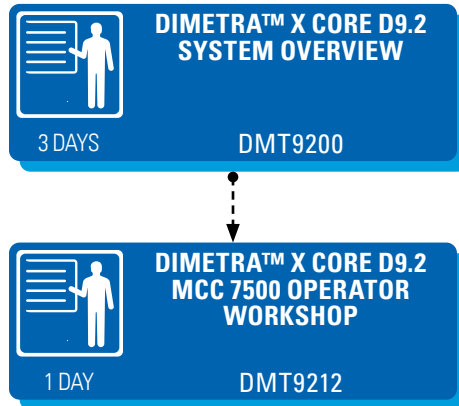**DIMETRA™ X CORE D9.2 MCC 7500 INSTALL, CONFIG, TROUBLESHOOTING, AND MAINTENANCE**
3 DAYS   DMT9213

RADIO SOLUTIONS **DIMETRA SYSTEMS**
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DIMETRA™ SYSTEM ADMINISTRATOR

DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW

3 DAYS   DMT9200

DIMETRA™ X CORE D9.2 CONFIGURATION AND ADMINISTRATION WORKSHOP

4 DAYS   DMT9201

DIMETRA X CORE D9.2 NETWORK SECURITY

2 DAYS   DMT9206

DIMETRA™ X CORE D9.2 FAULT MANAGEMENT WORKSHOP

3 DAYS   DMT9202

DIMETRA™ X CORE D9.2 PERFORMANCE MANAGEMENT WORKSHOP

3 DAYS   DMT9203

OPTIONAL TRAINING

DIMETRA™ X CORE D9.2 SECURE COMMUNICATIONS WORKSHOP

3 DAYS   DMT2094

DIMETRA™ X CORE D9.2 AIR INTERFACE ENCRYPTION, AUTHENTICATION, AND PROVISIONING

3 DAYS   DMT9205
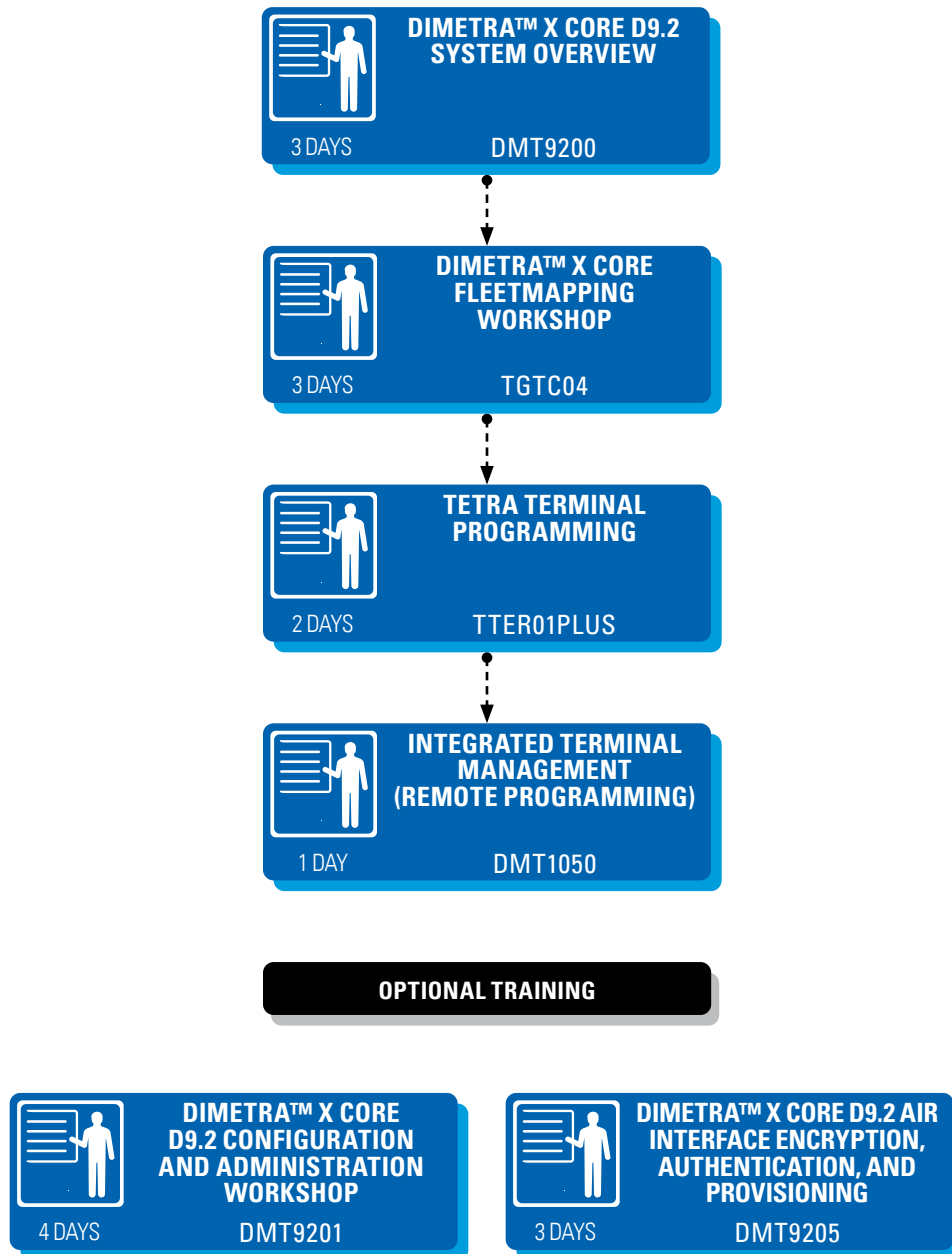
RADIO SOLUTIONS **DIMETRA SYSTEMS**
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DIMETRA™ DISPATCH ADMINISTRATOR

**DIMETRA™ X CORE D9.2
SYSTEM OVERVIEW**

3 DAYS   DMT9200

**DIMETRA™ X CORE D9.2
MCC 7500 INSTALL, CONFIG,
TROUBLESHOOTING, AND
MAINTENANCE**

3 DAYS   DMT9213

**DIMETRA™ X CORE D9.2
MCC 7500 ADMIN
WORKSHOP**

1 DAY   DMT9211

OPTIONAL TRAINING

**DIMETRA™ X CORE D9.2
SECURE COMMUNICATIONS
WORKSHOP**

3 DAYS   DMT2094

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DIMETRA™ DISPATCH OPERATOR

	DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW
3 DAYS	DMT9200

	DIMETRA™ X CORE D9.2 MCC 7500 OPERATOR WORKSHOP
1 DAY	DMT9212

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RADIO PROGRAM AND FLEETMAPPING

DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW

3 DAYS — DMT9200

DIMETRA™ X CORE FLEETMAPPING WORKSHOP

3 DAYS — TGTC04

TETRA TERMINAL PROGRAMMING

2 DAYS — TTER01PLUS

INTEGRATED TERMINAL MANAGEMENT (REMOTE PROGRAMMING)

1 DAY — DMT1050

OPTIONAL TRAINING

DIMETRA™ X CORE D9.2 CONFIGURATION AND ADMINISTRATION WORKSHOP

4 DAYS — DMT9201

DIMETRA™ X CORE D9.2 AIR INTERFACE ENCRYPTION, AUTHENTICATION, AND PROVISIONING

3 DAYS — DMT9205

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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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

DIMETRA EXPRESS SECURITY FEATURES: INSTALLATION, CONFIGURATION, AND 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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

DIMETRA™ X CORE D9.2 SYSTEM OVERVIEW

3 DAYS — DMT9200

COURSE OVERVIEW

This course provides an overview of the features and functions of a DIMETRA™ X Core D9.2 system. The course includes descriptions of the various call types and system hardware functionality. 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 D9.2 system functionality and features.

COURSE OBJECTIVES

At the end of this course, the student will be able to:
- Describe Basic Radio concepts.
- Describe DIMETRA™ X Core benefits.
- Describe DIMETRA™ X Core D9.2 features and their benefits.
- Describe DIMETRA™ X Core D9.2 Single Zone system components and their functionality.
- Describe the purpose and function of DIMETRA™ X Core D9.2 Network Management applications.
- Describe DIMETRA™ X Core D9.2 Multi-Zone system components and their functionality.
- Describe DIMETRA™ X Core D9.2 Inter-System Interface functionality.
- Describe how different types of calls are processed through a DIMETRA™ X Core D9.2 system.

REQUISITE KNOWLEDGE

Completion of the following course or equivalent experience:
- DMT0057 Introduction to Trunked Radio Concepts

PREREQUISITES

None

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DIMETRA™ X CORE D9.2 CONFIGURATION AND ADMINISTRATION WORKSHOP
4 DAYS — DMT9201

DIMETRA™ X CORE D9.2 FAULT MANAGEMENT WORKSHOP
3 DAYS — DMT9202

DIMETRA™ X CORE D9.2 PERFORMANCE MANAGEMENT WORKSHOP
3 DAYS — DMT9203

COURSE OVERVIEW

During this workshop, delegates will use configuration and administration applications to manage a DIMETRA™ X Core D9.2 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 configuration and administration of a DIMETRA™ X Core D9.2 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.

REQUISITE KNOWLEDGE

Completion of the following course or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

COURSE OVERVIEW

The workshop will allow delegates to use applications to identify faults on systems components using a live DIMETRA™ X Core D9.2 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 D9.2 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).

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

COURSE OVERVIEW

During this workshop, delegates will use applications on a live DIMETRA™ X Core D9.2 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 D9.2 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™ X Core Performance Management applications to monitor system activity and generate system reports.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

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DIMETRA™ X CORE D9.2 TROUBLESHOOTING AND MAINTENANCE WORKSHOP

5 DAYS   DMT9204

COURSE OVERVIEW

During this workshop, delegates will troubleshoot and maintain a live DIMETRA™ X Core D9.2 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 D9.2 system.

COURSE OBJECTIVES

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

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview
- DMT9202 DIMETRA™ X Core D9.2 Fault Management Workshop

PREREQUISITES

None

DIMETRA™ X CORE D9.2 AIR INTERFACE ENCRYPTION, AUTHENTICATION, AND PROVISIONING

3 DAYS   DMT9205

COURSE OVERVIEW

During this workshop, students will perform key management tasks on a live DIMETRA™ X Core D9.2 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 D9.2 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 hardware components used in the Encryption and Authentication Process.
- Describe TETRA radio authentication in the DIMETRA X Core system.
- Describe the TETRA security classes.
- Describe the DIMETRA X Core encryption keys.
- Describe distribution, storage, key updates and key management of Air Interface Encryption and Authentication keys.
- Perform Encryption Key management procedures using the Enhanced AuC, PrC, and KVL system components.
- Describe operational principles of the GCK feature.
- Perform provisioning of the TETRA radios for Authentication and Encryption.
- Perform EAuC administration and management tasks.
- Conduct EAuC backup and restore.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

DIMETRA™ X CORE D9.2 NETWORK SECURITY

2 DAYS   DMT9206

COURSE OVERVIEW

The workshop is designed to give an overview of the elements of the DIMETRA™ X Core D9.2 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 D9.2 system.

COURSE OBJECTIVES

By the end of the course, the student will be able to:
- Identify threats to network security and discuss methods of combating them.
- List the DIMETRA network security features.
- Describe the DIMETRA X Core antivirus protection and identify key components of an antivirus protection plan.
- Perform specified antivirus management tasks.
- Describe the precautions that can reduce the risk of a security breach.
- Describe the Customer Enterprise Network Interface Barrier (CENIB) features and components.
- Describe the firewall features and functions.
- Perform logins and management tasks for the firewall.
- Perform backup and restore procedures.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

DIMETRA™ X CORE D9.2 DISPATCH COMMUNICATIONS SERVER WORKSHOP
3 DAYS   DMT9207

DIMETRA X CORE D9.2 MSO RECOVERY AND RESTORATION WORKSHOP
5 DAYS   DMT9208

DIMETRA™ X CORE D9.2 SECURE COMMUNICATIONS WORKSHOP
3 DAYS   DMT2094

COURSE OVERVIEW

This workshop provides an overview of the DIMETRA™ Dispatch Communications Server 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 restoration procedures for DCS solution components in the event of failure.

REQUISITE KNOWLEDGE

None

PREREQUISITES
- DMT9200 DIMETRA™ X Core D9.2 System Overview
- DMT9201 DIMETRA™ X Core D9.2 Configuration and Administration Workshop

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COURSE OVERVIEW

During this workshop delegates will perform complete hardware, software and database restorations for DIMETRA™ X Core D9.2. 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

Staff who troubleshoots and maintains a DIMETRA™ X Core D9.2 system.

COURSE OBJECTIVES

By the end of the course, the student will be able to:
- Restore a DIMETRA™ X Core D9.2 System.
- Perform a complete system backup prior to re-installation.
- Complete a system power down.
- Reinstall system hardware/software.
- Restore a system database and reconfigure the system back to original operating conditions.
- Perform a post-restoration check and test.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience may be required, depending on the system:
- DMT9205 DIMETRA™ X Core D9.2 Air Interface Encryption, Authentication, and Provisioning
- DMT9206 DIMETRA™ X Core D9.2 Network Security

PREREQUISITES
- DMT9200 DIMETRA™ X Core D9.2 System Overview
- DMT9201 DIMETRA™ X Core D9.2 Configuration and Administration Workshop
- DMT9202 DIMETRA™ X Core D9.2 Fault Management Workshop
- DMT9204 DIMETRA™ X Core D9.2 Troubleshooting and Maintenance Workshop

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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 client administration tasks.
- Utilize the E2E KVL.
- Perform KMF OTAK/OTEK management activities and procedures.
- Setup an MCC 7500S secure console.
- Administer the KMF server.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

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DIMETRA™ X CORE D9.2 ALIAS SERVER INSTALLATION, CONFIGURATION, AND TROUBLESHOOTING COURSE

2 DAYS — DMT9214

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 (AS) 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 Alias Server.

COURSE OBJECTIVES

At the end of this course, the student will be able to:
- Describe the features of Alias Server.
- Describe the RUA/RUI application.
- Describe the Service Redundancy Solution in Alias Server
- List the hardware and software components in an AS solution.
- Perform Alias Server and provisioning client software installation procedures.
- Perform Alias Server application procedures.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience may be required, depending on the system:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

DIMETRA D9.1 TO D9.2.0 LIFECYCLE MANAGEMENT CUSTOMER IMPLEMENTATION TRAINING

2 DAYS — DMT9215

COURSE OVERVIEW

This course provides the participants with the details of the upgrade and specifically, how to successfully administer, manage, operate, maintain, and troubleshoot the new upgrade features.

TARGET AUDIENCE

System operators such as system administrators, system maintenance staff, and field engineers.

COURSE OBJECTIVES

At the end of this course, you should be able to:
- Describe the system upgrade: the architecture and platform changes.
- Describe new baseline and licensed features' operational principles.
- Configure, administer, manage, and operate new baseline and licensed features and functions.
- Maintain and troubleshoot the new baseline and licensed features of the system.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

DIMETRA X CORE EDGE INSTALLATION, CONFIGURATION, AND ADMINISTRATION WORKSHOP

2 DAYS — DMT9216

COURSE OVERVIEW

In this course, you will learn about the DIMETRA™ X Core Edge solution and how it operates within a DIMETRA X Core system. You will also carry out installation and configuration procedures based on real business scenarios.

TARGET AUDIENCE

Technical support staff who needs to install and configure the DIMETRA X Core Edge solution.

COURSE OBJECTIVES

At the end of this course, you should be able to:
- Describe the DIMETRA X Core Edge solution.
- List requirements, capacity, and limitations the DIMETRA X Core Edge solution.
- Install and configure DIMETRA X Core Edge to operate on your DIMETRA system.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9200 DIMETRA X Core D9.2 System Overview.

PREREQUISITES

None

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DIMETRA™ EXPRESS INSTALLATION, CONFIGURATION AND 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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

DIMETRA™ EXPRESS ADVANCED WORKSHOP

2 DAYS   DMT0070

COURSE OVERVIEW

Participants attending this advanced training will learn how to carry out the entire necessary configuration activities required when commissioning a DIMETRA™ Express radio network.

The course encompasses the theory and practice of Motorola Solutions TETRA radios programming, using Customer Programming Software (CPS), description and configuration of applications used for remote programming, using the Integrated Terminal Manager (iTM), an overview of the MTS base station in a DIMETRA system with practical use of the man-machine interface, and also hands-on training on the removal and replacement of Field Replaceable Units (FRU), as well configuring the Motorola Solutions GGM 8000 (Analog) gateway to enable trunked system users to incorporate analog conventional channels into DIMETRA Express.

TARGET AUDIENCE

Technical staff responsible for setting up or managing DIMETRA Express system.

COURSE OBJECTIVES

At the end of the course, participants will be able to:
- Describe the function of major CPS Plus features and tools.
- Describe the role of the iTM system in managing the mobile terminal fleet and iTM features.
- Carry out radio programming using CPS Plus / iTM.
- Identify the Field Replaceable Units (FRUs) within the MTS.
- Carry out removal and replacement procedures for MTS FRUs.
- Perform Analog Channel Gateway Installation.

REQUISITE KNOWLEDGE

- Basic understanding of Radio Frequency (RF) technology and Internet Protocol (IP) fundamentals.
- Fundamental information technology skills.

PREREQUISITES

None

CONSOLE COURSES

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DIMETRA™ X CORE D9.2 MCC 7500 ADMIN WORKSHOP
1 DAY — DMT9211

DIMETRA™ X CORE D9.2 MCC 7500 OPERATOR WORKSHOP
1 DAY — DMT9212

DIMETRA™ X CORE D9.2 MCC 7500 INSTALL, CONFIG, TROUBLESHOOTING, AND MAINTENANCE
3 DAYS — DMT9213

COURSE OVERVIEW

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

TARGET AUDIENCE

System Administrators for Dispatch Console Operators.

COURSE OBJECTIVES

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

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- DMT9212 DIMETRA™ X Core D9.2 MCC 7500 Operator Workshop

PREREQUISITES

None

COURSE OVERVIEW

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

TARGET AUDIENCE

Dispatch console operators.

COURSE OBJECTIVES

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

COURSE OVERVIEW

During this workshop, students will perform installation, configuration, and troubleshooting procedures relating to the MCC 7500C dispatch console on a live DIMETRA™ X Core D9.2 system.

TARGET AUDIENCE

Control Room Managers, System Engineers, and Network Administrators responsible for the installation, configuration, and maintenance of control rooms containing MCC 7500C dispatch consoles in a DIMETRA™ X Core D9.2 system.

COURSE OBJECTIVES

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

REQUISITE KNOWLEDGE

Completion of the following course or equivalent experience:
- DMT9200 DIMETRA™ X Core D9.2 System Overview

PREREQUISITES

None

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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.

REQUISITE KNOWLEDGE
Basic knowledge of the installation and configuration of the DIMETRA Express system.

PREREQUISITES
None

DATAVOICE LIBRA RECORDER SYSTEM FOR DIMETRA

2 DAYS — DMT1007

COURSE OVERVIEW
This course will give an overview of the architecture, features, operations, and administration tasks required to maintain the DataVoice Logging solution within a DIMETRA™ system.

TARGET AUDIENCE
System Administrators of the Control Room, which includes MCC 7500 dispatch consoles and DataVoice equipment.

COURSE OBJECTIVES
By the end of the course the student will be able to:
- Describe the components of DataVoice Logging Solution.
- Describe the Features and Functions of the DataVoice Logging system.
- State the steps required to perform DataVoice Libra Software Installation.
- Describe the Configuration elements need to operate the DataVoice Logger.
- Describe the backup steps required to restore the DataVoice logging configuration and database.

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

DATAVOICE LOGGING END-USER COURSE

1 DAY — DMT1313

COURSE OVERVIEW
This course is an introduction to the DataVoice Logging Solution and WebRecall application, including Live Monitoring.

TARGET AUDIENCE
Users (operators) of the DataVoice Logging Solution.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe the components of the DataVoice Logging Solution.
- Describe the WebRecall features.
- Describe WebRecall operation and functionality, including Live Monitoring.

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

BASE STATIONS COURSES

RADIO SOLUTIONS **BASE STATIONS**

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

4 DAYS   TBTS01

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

MTS 1 INSTALLATION, CONFIGURATION, TROUBLESHOOTING AND MAINTENANCE

3 DAYS   TBTS04

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.

REQUISITE KNOWLEDGE

RF and Field or Bench service background is recommended.

PREREQUISITES

None

SUBSCRIBER COURSES

RADIO SOLUTIONS **SUBSCRIBERS**

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

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training.emea@motorolasolutions.com

TETRA SUBSCRIBER END-USER OPERATOR COURSES

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

ST7000 END-USER OPERATOR 1 DAY — DMT1083	**MTP3000 SERIES END-USER OPERATOR** 1 DAY — DMT1054
MTP6000 SERIES END-USER OPERATOR 1 DAY — DMT1068	**MTM5000 SERIES END-USER OPERATOR** 1 DAY — DMT1070
MTP8000EX SERIES END-USER OPERATOR 1 DAY — DMT1069	**ST7500 END-USER OPERATOR** 1 DAY — DMT0033
MXP600 END USER OPERATOR 1 DAY — DMT6003	**MXP7000 END USER OPERATOR** 1 DAY — DMT7002
MXM7000 END USER OPERATOR 1 DAY — DMT7003	

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

OTHER SUBSCRIBER COURSES

Click the boxes below to get additional information and to register for the following courses.

TETRA SUBSCRIBER OPERATOR, PROGRAMMING AND MAINTENANCE 1 DAY — DMT1107	**ADVISOR TPG2200 TETRA TWO-WAY PAGER END USER OPERATOR** 0.5 HRS — DMT0029	**MXM7000 OVERVIEW** 1 HR — DMT7001
INTEGRATED TERMINAL MANAGEMENT (REMOTE PROGRAMMING) 1 DAY — DMT1050	**MXP7000 OVERVIEW** 1 HR — DMT7000	**MXP7000 & MXM7000 SETUP AND PROVISIONING** 0.75 HRS — DMT7004

RADIO SOLUTIONS **SUBSCRIBERS**

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MXP7000 & MXM7000 SETUP AND PROVISIONING (ILT)

1 DAY   DMT7005

COURSE OVERVIEW

This course provides an overview on how to set up and provision the MXP7000 and MXM7000 radios.

TARGET AUDIENCE

This course is intended for individuals who needs to know how to setup and provision the MXP7000 and MXM7000 radios.

COURSE OBJECTIVES

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

- Understand Ethernet programming
- Set up Ethernet programming
- Set up iTM
- Set up and Configure MXP7000 and MXM7000.

REQUISITE KNOWLEDGE

Basic knowledge on TETRA radios

PREREQUISITES

None

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

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.

REQUISITE KNOWLEDGE

A working knowledge of MS Windows operating environment.

PREREQUISITES

None

RADIO SOLUTIONS **SUBSCRIBERS**

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MOTOTRBO ION FEATURES AND SERVICES

2 HRS   PCT0161

COURSE OVERVIEW

This course provides an overview of the MOTOTRBO Ion features and services. You will learn about the use cases of each feature as well as how to operate them. You will also learn how to configure, update, and maintain your radio so that it stays in optimum condition.
Note: This course is previously known as PCT0141 MOTOTRBO Ion Features and Services

TARGET AUDIENCE

This course is intended for those who want to know more about the MOTOTRBO Ion radio's features and services.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Describe the features and services covered in this course.
- Operate these features on the radio.
- Prepare the radio for field use.
- Maintain the radio in good condition based on the recommended radio care.
- Perform basic radio troubleshooting.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

MOTOTRBO ION OVERVIEW

1 HR   PCT0129

COURSE OVERVIEW

This course provides an overview of the MOTOTRBO ION features and capabilities. We will help you understand how they work, when they are useful, and how they impact your day-to-day task.

TARGET AUDIENCE

This course is intended to those who need to get an overview of MOTOTRBO ION radio.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Identify the MOTOTRBO ION radio.
- Understand what the new features are for the MOTOTRBO ION radio.
- Identify controls and features of the MOTOTRBO ION radio.
- Perform common operations of the MOTOTRBO ION radio

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

MOTOTRBO ION MYVIEW AND RADIOCENTRAL OVERVIEW

1 HR   PCT0131

COURSE OVERVIEW

This course provides an introduction to using the MyView Portal and the RadioCentral Client to manage the basic setup and configuration of the features for your MOTOTRBO Ion devices.

TARGET AUDIENCE

This course is intended for individuals who need to configure, maintain, and monitor the MOTOTRBO ION radio.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Navigate through the MyView Portal to find the editing and administrative tools.
- Navigate through the RadioCentral Client to find the editing and device programming tools as well as standard views.
- Once enrolled, the learner will be able to download a sample MOTOTRBO Ion configuration from the Resources tab.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

RADIO SOLUTIONS **SUBSCRIBERS**

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RADIOCENTRAL MOTOTRBO ION WORKSHOP
1 DAY   PCT0132

COURSE OVERVIEW
In this workshop, you will learn about the MyViewPortal and RadioCentral application to set up and program the MOTOTRBO Ion radios.

TARGET AUDIENCE
This course is intended for system managers and technical staff responsible for managing MOTOTRBO Ion radios.

COURSE OBJECTIVES
After completing this course, you should be able to:
- Navigate through the MyView Portal to find the editing and administrative tools.
- Navigate through the RadioCentral Client to find the editing tools and standard views.
- Successfully complete the lab tasks covered in the course to be able to navigate and perform basic operations in MyView Portal and RadioCentral.
- Describe basic troubleshooting steps for a MOTOTRBO ION device.

REQUISITE KNOWLEDGE
- Completed PCT0131 MOTOTRBO™ Ion MyView and RadioCentral™ Overview course
- MOTOTRBO system knowledge
- Familiarity with MOTOTRBO radio programming using CPS or Radio Management software

PREREQUISITES
None

MOTOTRBO™ RADIO MANAGEMENT 2.0 CONFIGURATION MODE
1 HR   PCT1032

COURSE OVERVIEW
This self-paced course is a basic tutorial of Radio Management (RM) 2.0 Configuration Mode. A set of short videos present installation and deployment of RM components, explain the concepts of sets and configurations, and demonstrate the user how to navigate through RM Client views and functionalities. The course also covers migration from template to configuration mode, backup and restores procedures, as well as user and machine authorization.

TARGET AUDIENCE
Professionals responsible for configuring, deploying, or maintaining MOTOTRBO™ radios and repeaters.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Explain the purpose of that Radio Management Configuration (RM) Mode.
- Explain the concept of sets and configurations.
- Set up Radio Management 2.0 for the first time.
- Name and navigate through major RM Client views.
- Perform basic RM Configuration Client operations: populate and manage radio database, edit sets and configurations, etc.
- Perform Server Utility operations.

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

MOTOTRBO CPS 2.0 PROGRAMMING
1 HR   PCT0115

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..

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

RADIO SOLUTIONS **SUBSCRIBERS**

MOTOTRBO™ SUBSCRIBER AND REPEATER TECHNICAL SERVICE ACADEMY

4 DAYS — TBO300

COURSE OVERVIEW

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

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

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

MOTOTRBO™ RADIO MANAGEMENT 2.0 WORKSHOP

2 DAYS — PCT2022

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

PCT1032 MOTOTRBO™ Radio Management 2.0 Configuration Mode

APX™ RADIO MANAGEMENT OVERVIEW

1 HR — AST2003

COURSE OVERVIEW

This course provides an overview of the features and functions of the APX™ series Radio Management software. Participants will learn what the Radio Management software is designed to do, and will also learn how to use it to program large and small groups of subscribers.

TARGET AUDIENCE

Technicians and System Managers needing an understanding of the basics of the Radio Management application as well as database and fleet management.

COURSE OBJECTIVES

After completing this course, the student will be able to:
- Identify the solution that Radio Management provides
- Differentiate between All-in-One PC needs and Distributed Use needs regarding Radio Management
- Locate the APX™ Radio Management
- Navigate the APX™ Radio Management screens
- Populate the database
- Schedule a Read job
- Manage multiple APX™ radios simultaneously
- Create, modify, and select programming templates
- Schedule a Write job
- Conduct a search
- Search, sort, and group radios
- Sort and manage information in the Table view
- Identify the function of the Job view

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

RADIO SOLUTIONS **SUBSCRIBERS**

APX™ RADIO MANAGEMENT WORKSHOP

3 DAYS — RDS2017

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.

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience:
- APX7001APX™ CPS Programming and Template Building Overview

PREREQUISITES

None

APX™ CPS RADIO PROGRAMMING AND TEMPLATE BUILDING

2 DAYS — APX7001

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

APX™ TECHNICAL SUBSCRIBER ACADEMY

5 DAYS — APX010

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

REQUISITE KNOWLEDGE

Completion of the following courses or equivalent experience:
- NST021 Communication Systems Concepts
- APX7001 APX CPS Programming and Template Building Overview
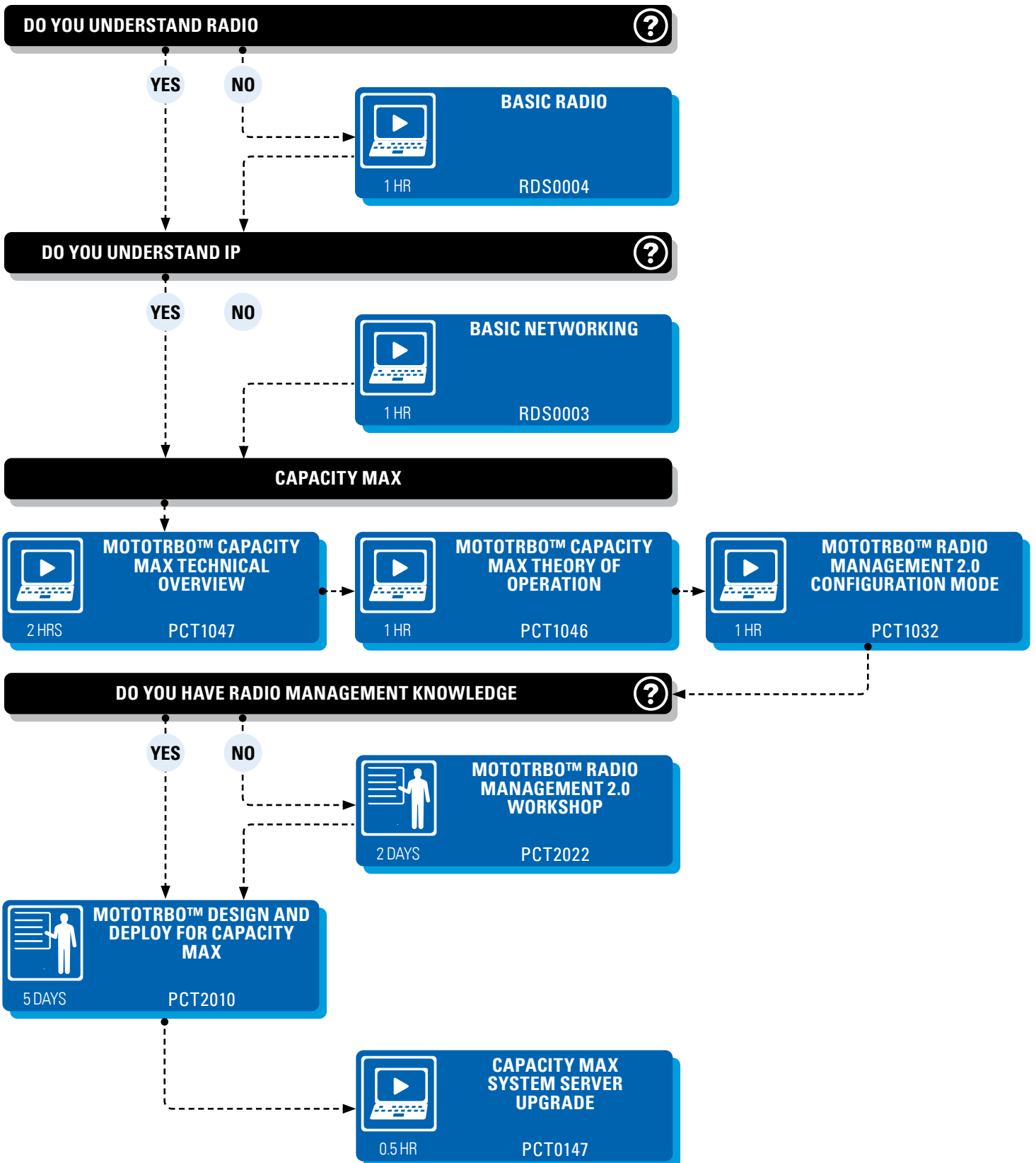
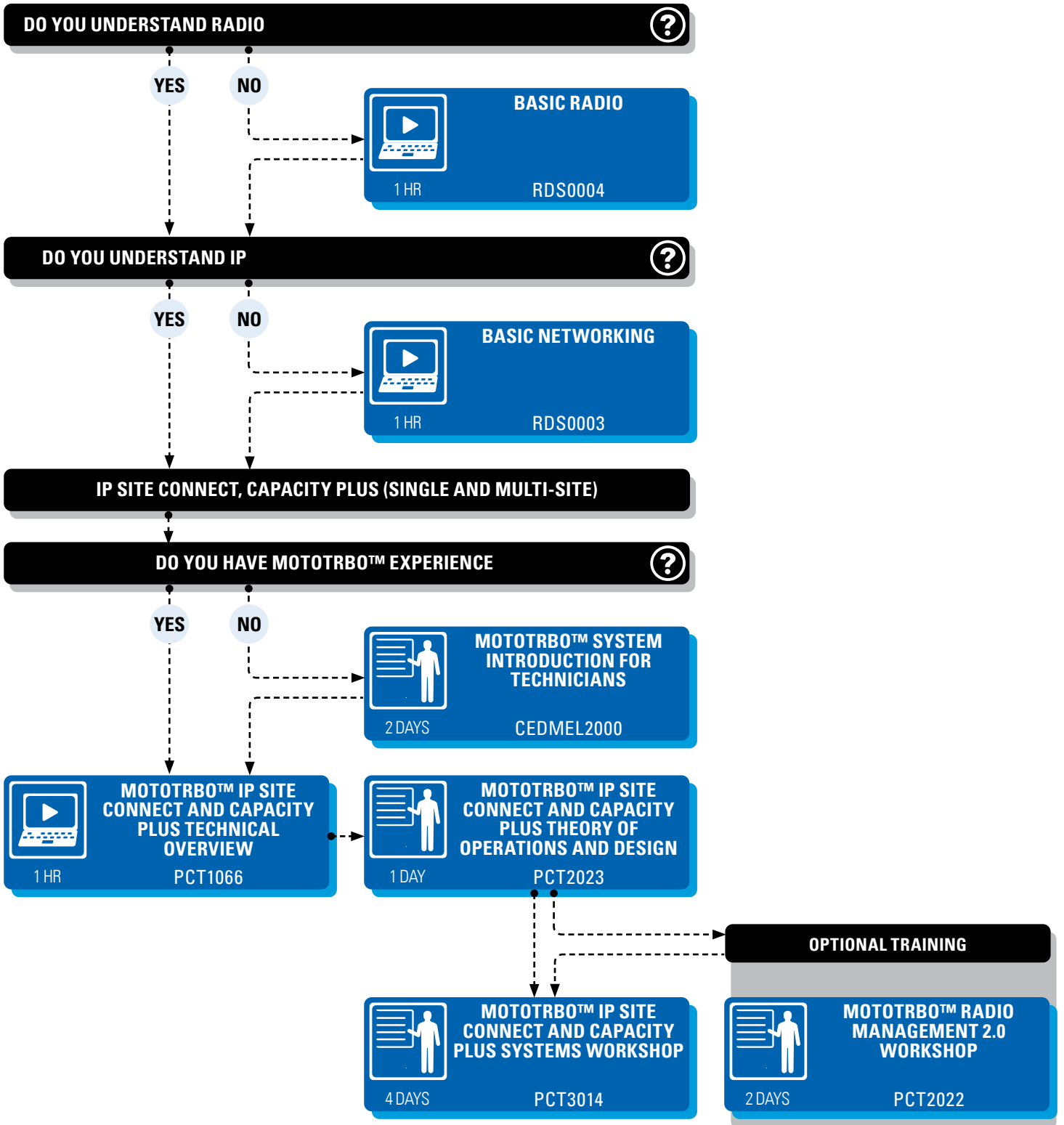### PREREQUISITES

None

MOTOTRBO™ COURSES

MOTOTRBO™ TECHNICAL CAPACITY MAX TRAINING CURRICULUM

DO YOU UNDERSTAND RADIO ?

YES   **NO**

BASIC RADIO

1 HR   RDS0004

DO YOU UNDERSTAND IP ?

YES   **NO**

BASIC NETWORKING

1 HR   RDS0003

CAPACITY MAX

MOTOTRBO™ CAPACITY MAX TECHNICAL OVERVIEW

2 HRS   PCT1047

MOTOTRBO™ CAPACITY MAX THEORY OF OPERATION

1 HR   PCT1046

MOTOTRBO™ RADIO MANAGEMENT 2.0 CONFIGURATION MODE

1 HR   PCT1032

DO YOU HAVE RADIO MANAGEMENT KNOWLEDGE ?

YES   **NO**

MOTOTRBO™ RADIO MANAGEMENT 2.0 WORKSHOP

2 DAYS   PCT2022

MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY MAX

5 DAYS   PCT2010

CAPACITY MAX SYSTEM SERVER UPGRADE

0.5 HR   PCT0147

RADIO SOLUTIONS **MOTOTRBO™**
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MOTOTRBO™ TECHNICAL IP SITE CONNECT, CAPACITY PLUS TRAINING CURRICULUM

DO YOU UNDERSTAND RADIO ?

YES   NO

BASIC RADIO

1 HR   RDS0004

DO YOU UNDERSTAND IP ?

YES   NO

BASIC NETWORKING

1 HR   RDS0003

IP SITE CONNECT, CAPACITY PLUS (SINGLE AND MULTI-SITE)

DO YOU HAVE MOTOTRBO™ EXPERIENCE ?

YES   NO

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

2 DAYS   CEDMEL2000

MOTOTRBO™ IP SITE CONNECT AND CAPACITY PLUS TECHNICAL OVERVIEW

1 HR   PCT1066

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

1 DAY   PCT2023

OPTIONAL TRAINING

MOTOTRBO™ IP SITE CONNECT AND CAPACITY PLUS SYSTEMS WORKSHOP

4 DAYS   PCT3014

MOTOTRBO™ RADIO MANAGEMENT 2.0 WORKSHOP

2 DAYS   PCT2022

MOTOTRBO™ SYSTEM INTRODUCTION FOR TECHNICIANS

2 DAYS   CEDMEL2000

COURSE OVERVIEW

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

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:
- Correctly categorize the different components available to build your MOTOTRBO™ system.
- Accurately explain the functional technology that MOTOTRBO™ systems employ
- Propose the MOTOTRBO™ topology that best fits the user requirements.
- Correctly 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.
- Design a fleetmap in accordance with organizational requirements and resources.
- Select the right MOTOTRBO™ tool for your needs.
- Successfully purchase, register, and activate premium radio features.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

MOTOTRBO™ CAPACITY MAX TECHNICAL OVERVIEW

2 HRS   PCT1047

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

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- RDS0004 Basic Radio

PREREQUISITES

None

MOTOTRBO™ CAPACITY MAX THEORY OF OPERATION

1 HR   PCT1046

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

REQUISITE KNOWLEDGE

Basic Radio knowledge

PREREQUISITES

PCT1047 MOTOTRBO™ Capacity Max Technical Overview

RADIO SOLUTIONS **MOTOTRBO™**

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MOTOTRBO™ DESIGN AND DEPLOY FOR CAPACITY MAX

5 DAYS   PCT2010

CAPACITY MAX SYSTEM SERVER UPGRADE

0.5 HR   PCT0147

MOTOTRBO™ IP SITE CONNECT AND CAPACITY PLUS TECHNICAL OVERVIEW

1 HR   PCT1066

COURSE OVERVIEW

MOTOTRBO™ Capacity Max Design and Deploy begins by covering the design process for a Capacity Max Radio system. Participants will have the opportunity to practice designing and deploying a small scale, 2 Site/3 Channel, Capacity Max system in a safe classroom environment. This course will also cover how to configure Capacity Max using Radio Management 2.0 Configuration Mode.

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 optimise a Capacity Max system.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- Understanding IP Network Addressing.
- Knowledge of RF Propagation modeling tools

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

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.

REQUISITE KNOWLEDGE
- Knowledge IP Network Addressing.
- Knowledge of virtual machines

PREREQUISITES
None

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.

REQUISITE KNOWLEDGE

Completion of the following course(s) or equivalent experience:
- RDS0004 Basic Radio
- CEDMEL2000 MOTOTRBO™ Systems Introduction for Technicians

PREREQUISITES
None

RADIO SOLUTIONS **MOTOTRBO™**

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

1 DAY   PCT2023

COURSE OVERVIEW
This course is designed to help you gain a solid foundation and understanding of the theory behind how an IPSC and Capacity Plus system functions. It describes the life cycle of a call, repeater arbitration and Motorola's proprietary Enhanced Channel Access (ECA) feature. In addition, you will learn about the different IPSC and Capacity Plus system design options, fleetmapping and the MOTORBO System Design Tool.

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.
- Describe the roaming process which helps to optimise User coverage.
- Describe Data capabilities.
- Understand the purpose and intent of voting repeaters and receivers.

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- RDS0004 Basic Radio
- CEDMEL2000 MOTOTRBO™ Systems Introduction for Technicians

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

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MOTOTRBO™ IP SITE CONNECT AND CAPACITY PLUS SYSTEMS WORKSHOP

4 DAYS   PCT3014

COURSE OVERVIEW
This course allows the participant to 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. Under the Instructor's guidance, participants will have the opportunity to practise designing and deploying the systems in a safe classroom environment. The course also provides information on the fleetmapping considerations together with exercises for each system type.

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.

REQUISITE KNOWLEDGE
Completion of the following courses or equivalent knowledge:
- RDS0004 Basic Radio
- CEDMEL2000 MOTOTRBO™ System Introduction for Technicians

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

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TRBONET PLUS ESSENTIALS AND DEPLOYMENT

2 DAYS   PCT2006

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

REQUISITE KNOWLEDGE
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

PREREQUISITES
None

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training.emea@motorolasolutions.com

TRBONET PLUS FOR CAPACITY MAX

2 DAYS — PCT3031

COURSE OVERVIEW

During this course, you will cover all aspects of the TRBOnet Plus system. You 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

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

SMARTPTT PLUS

3 DAYS — PCT2005

COURSE OVERVIEW

This course covers all aspects of the SmartPTT Plus system. It provides detailed information on the system's benefits, architecture and features, including the requirements for deploying a SmartPTT system. The course then goes on to cover 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 function of SmartPTT PLUS
- Describe SmartPTT PLUS solution architecture
- List the system requirements for deploying a SmartPTT PLUS solution
- Describe the process of system design for IP Site Connect, Capacity Plus, Linked Capacity Plus
- Describe the system design processes for Connect Plus
- Define the set-up, installation and configuration process for the SmartPTT PLUS Radio Server
- Define the set-up, installation and configuration process for the SmartPTT PLUS Dispatcher console functions
- Configure MOTOTRBO™ radios and repeaters for SmartPTT PLUS
- Configure MOTOTRBO™ Network Interface Service and MOTOTRBO™ DDMS Administrative Client

REQUISITE KNOWLEDGE

- 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
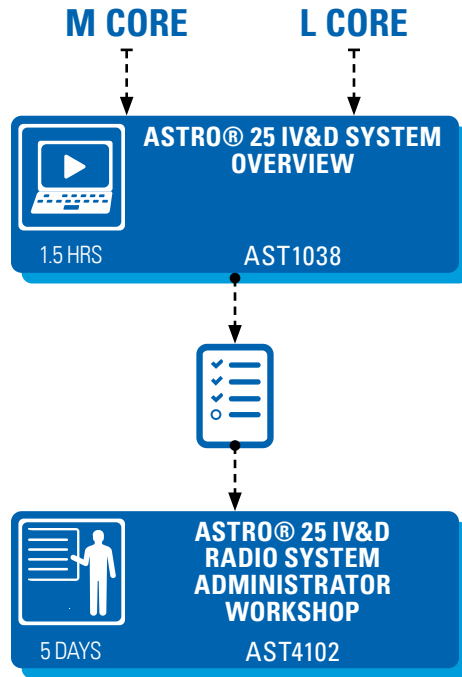
PREREQUISITES

None

ASTRO® 25 IV&D SYSTEM COURSES

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LXP at:
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training.emea@motorolasolutions.com

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR

M CORE   **L CORE**

ASTRO® 25 IV&D SYSTEM OVERVIEW

1.5 HRS   AST1038

ASTRO® 25 IV&D RADIO SYSTEM ADMINISTRATOR WORKSHOP

5 DAYS   AST4102

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT SHOULD BE ABLE TO CARRY OUT ADMINISTRATIVE TASKS IN THE ASTRO® 25 IV&D SYSTEM SUCH AS: PROVISIONING SUBSCRIBERS AND TALK GROUPS, GENERATING HISTORICAL REPORTS, CONTROLLING DEPLOYED SUBSCRIBERS AND MANAGING NETWORK ELEMENT CONFIGURATIONS.
PARTICIPANT UNDERSTANDS FACTORS OF SYSTEM CONFIGURATION THAT IMPACT ASTRO® 25 SYSTEM MANAGEMENT.

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

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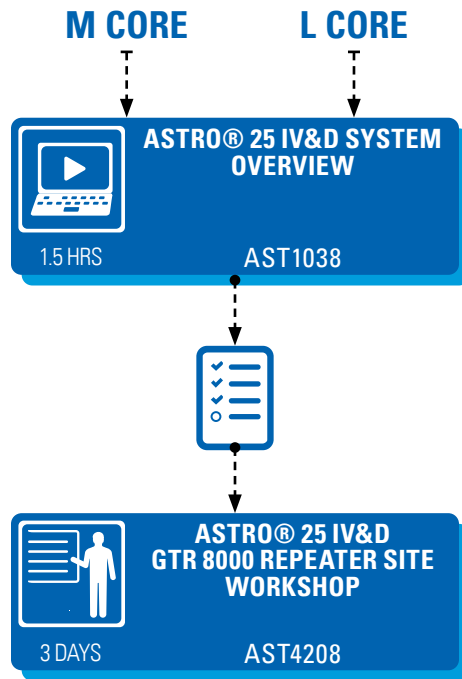
ASTRO® 25 IV&D M/L CORE TECHNICIAN

M CORE   **L CORE**

ASTRO® 25 IV&D SYSTEM OVERVIEW

1.5 HRS   AST1038

ASTRO® 25 IV&D SYSTEM CORE WORKSHOP

5 DAYS   AST4103
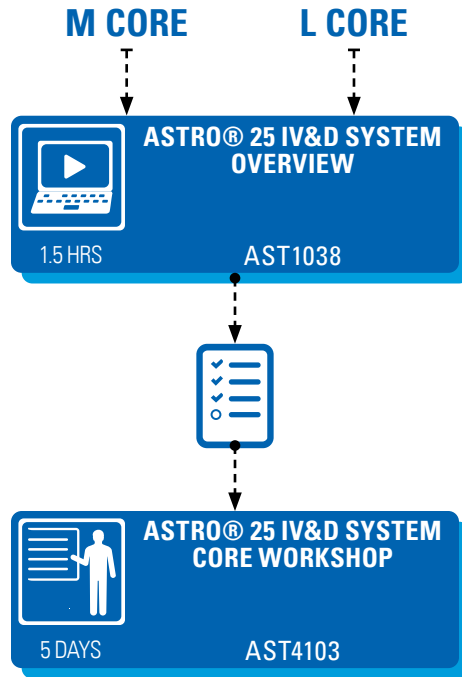
RECOMMENDED CURRICULUM IS COMPLETE

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

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
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ASTRO® 25 IV&D REPEATER SITE TECHNICIAN (GTR)

M CORE   **L CORE**

ASTRO® 25 IV&D SYSTEM OVERVIEW

1.5 HRS   AST1038

ASTRO® 25 IV&D GTR 8000 REPEATER SITE WORKSHOP

3 DAYS   AST4208

RECOMMENDED CURRICULUM IS COMPLETE

PARTICIPANT CAN MAINTAIN AN ASTRO® 25 REPEATER SITE INCLUDING: GTR8000 BASE STATION, GCP8000 SITE CONTROLLER AND OTHER SITE EQUIPMENT.

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
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ASTRO® 25 IV&D CONVENTIONAL RF SITE TECHNICIAN

M CORE   **L CORE**

ASTRO® 25 IV&D SYSTEM OVERVIEW

1.5 HRS   AST1038

ASTRO® 25 IV&D CONVENTIONAL RF SITE WORKSHOP

3 DAYS   AST4440
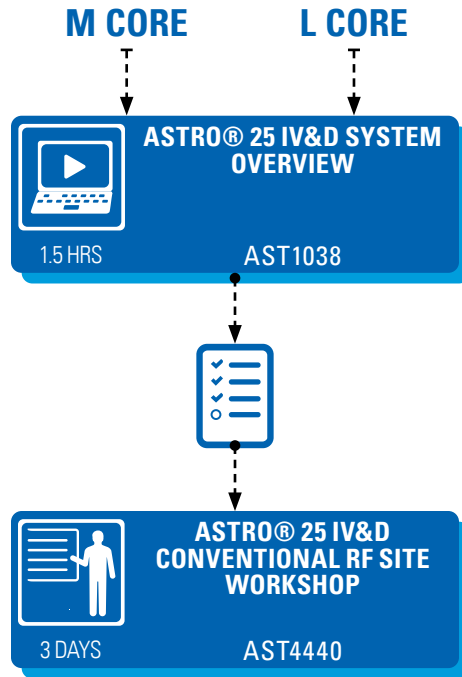
RECOMMENDED CURRICULUM IS COMPLETE

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

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

TARGET AUDIENCE

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

COURSE OBJECTIVES

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

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.
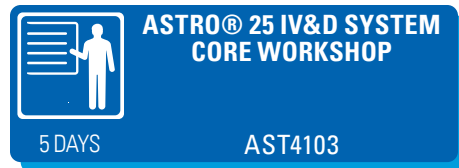- Describe extended topologies such as the Data Subsystem and ISSI.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

RADIO SOLUTIONS **ASTRO® 25 IV&D SYSTEMS**
For information on prerequisites and to register for courses visit the LXP at:
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training.emea@motorolasolutions.com

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.

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

PREREQUISITES
None

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.

REQUISITE KNOWLEDGE
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

PREREQUISITES
None

ASTRO® 25 IV&D CONVENTIONAL CORE WITH CONFIGURATION MANAGER WORKSHOP
3 DAYS   AST4410

COURSE OVERVIEW
The ASTRO® 25 IV&D Conventional Core with Configuration Manager course teaches advanced troubleshooting skills and best practices for the ASTRO® 25 IV&D Conventional Core with Configuration Manager. It also focuses on administrator functions and how to use the ASTRO® 25 IV&D Configuration Manager applications. A technical introduction to the MCC 7500 as used within the ASTRO® 25 IV&D Conventional Core with Configuration Manager, including some administrator functions, is also provided. Learning activities focus on gathering and analyzing system information to implement the appropriate actions that return a system to full operational status.

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

COURSE OBJECTIVES
After completing the course the participant will be able to:
- Identify changes as a result of the upgrade early to more easily manage the changes.
- Identify operational procedures that will go away as a result of the upgrade.
- Identify operational procedures that will change as a result of the upgrade.
- Identify new operational procedures that will be available as a result of the upgrade.

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

PREREQUISITES
None

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

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ASTRO® 25 IV&D CONVENTIONAL RF SITE WORKSHOP
3 DAYS — AST4440

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

TARGET AUDIENCE
Site Technicians

COURSE OBJECTIVES
After completing the course the participant will be able to:
- Understand key physical and functional characteristics of conventional site.
- Perform tasks necessary to install conventional site components.
- Perform configuration steps for conventional site components.
- Understand available maintenance tools and indicators in conventional site.

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- ACT101E Bridging the Knowledge Gap – System Administrators
- NST762 Networking Essentials in Motorola Communications Equipment
- AST4104 ASTRO® 25 Systems Applied Networking
- AST1038 ASTRO® 25 IV&D System Overview

PREREQUISITES
None

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.

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

ASTRO® 25 IV&D RADIO AUTHENTICATION
2 DAYS — AST2038

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

TARGET AUDIENCE
Customer Administrators or Technicians.

COURSE OBJECTIVES
After completing this course, the student will be able to:
- Describe Radio Authentication features and HW/SW components
- Describe the Radio Authentication process
- Discuss the Keys used in Radio Authentication
- Provision and Distribute relevant Keys
- Describe the AuC Client GUI
- Enable Radio Authentication in the System
- Configure the KVL 4000 for Radio Authentication
- Manage Subscribers from the AuC Client
- Discuss Radio Authentication functionality in a DSR system

REQUISITE KNOWLEDGE
Completion of the following course(s) or equivalent experience:
- AAE1400 Radio Authentication.
- Radio System Administration or equivalent knowledge of the Provisioning Manager, ZoneWatch, Historical Reports, ATIA Log Viewer, Unified Event Manager (UEM), Unified Network Configurator (UNC).

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

PRIVATE BROADBAND

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GINA OPERATOR TRAINING
2 DAYS — RDS0011

GINA ADMINISTRATION
1 DAY — RDS0012

WAVE PTX OVERVIEW
0.75 HRS — PTT0001E

GINA OPERATOR TRAINING

COURSE OVERVIEW

The course includes a conceptual overview of the solution, and presents operation procedures for the GINA Central environment.

TARGET AUDIENCE

The course is dedicated to system operators responsible for end-user management, dispatch activities, monitoring and processing emergency events.

COURSE OBJECTIVES

By the end of the course, the student will be able to:
- Present GINA solution from a high-level perspective (IMW context is included).
- Explain basic system concepts.
- Introduce GINA Central from the operator's perspective.
- Present basic and advanced operations within the GINA Central environment.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

GINA ADMINISTRATION

COURSE OVERVIEW

The course is intended for individuals performing administrative roles in the management and maintenance of GINA systems. It includes a range of functions that an administrator can perform, from system configuration, logging, and daily upkeep, to user and solution management.

TARGET AUDIENCE

The course is primarily intended for system administrators that have full access rights, and it includes solution management from the backend perspective.

COURSE OBJECTIVES

By the end of the course, the student will be able to:
- Present GINA architecture from a high-level perspective.
- Present configuration and integration details with Intelligent Middleware.
- Explore administrative options in the GINA Central client.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

WAVE PTX OVERVIEW

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

PRIVATE BROADBAND

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

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

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.

REQUISITE KNOWLEDGE
None

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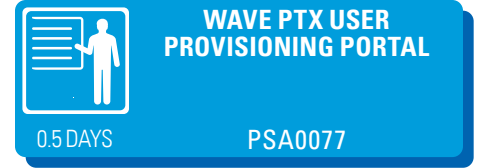After completing this course, the student will be able to:
- Navigate and use the WAVE PTX Mobile Application in Standard and PTT Radio modes.
- Initiate and receive PTT calls to and from contacts and talkgroups.
- Initiate and receive video streaming sessions to and from contacts and talkgroups.
- Use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

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

WAVE PTX USER PROVISIONING PORTAL

0.5 DAYS — PSA0077

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

REQUISITE KNOWLEDGE
None

PREREQUISITES
None

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WAVE PTX ENTERPRISE CONTACTS AND GROUP MANAGEMENT PORTAL

0.5 DAYS   PSA0078

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

WAVE PTX HANDSET STANDARD MODE

0.5 DAYS   PSA0079

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

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

WAVE PTX HANDSET PTT RADIO MODE

0.5 DAYS   PSA0080

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

PRIVATE BROADBAND

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WAVE PTX DISPATCH CONSOLE AND FEATURES

1 DAY — PSA0081

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.

REQUISITE KNOWLEDGE

None

PREREQUISITES

None

WAVE PTX SYSTEM OVERVIEW AND ARCHITECTURE

0.5 DAYS — PTT0071

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

WAVE GATEWAY SYSTEM OVERVIEW AND ARCHITECTURE

0.5 DAYS — PTT0072

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.

REQUISITE KNOWLEDGE

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

PREREQUISITES

None

PRIVATE BROADBAND

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WAVE SYSTEM ALARMS DASHBOARD
0.5 DAYS   PTT0073

WAVE SYSTEM FIELD UTILITIES TOOL
0.5 DAYS   PTT0074

CRITICAL CONNECT (GATEWAY) PORTAL FOR INTEROPERABILITY WITH WAVE SYSTEM
0.5 DAYS   PTT0075

COURSE OVERVIEW
The course is designed to provide exposure to the Alarms Dashboard tool used for real time alarm monitoring on both the WAVE Push-to-Talk and LMR Solution.

TARGET AUDIENCE
Engineering or operations groups responsible for monitoring the alarm system for the WAVE PTT network, platform. and services.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Describe the process of alarm generation and integration with other external alarm systems owned by the customer.
- Understand alarms with codes and descriptions for different subsystems.
- Troubleshoot alarms generated by different subsystems.
- Locate technical reference documentation providing further detail.

REQUISITE KNOWLEDGE
- Knowledge on basic functionalities and features on WAVE Platform
- Key organization network and IT systems
- Networking knowledge, components and functions

PREREQUISITES
None

COURSE OVERVIEW
The course is designed to provide exposure to the Filed Utilities tool which is used for collection of logs, filed checks from different components of the WAVE platform.

TARGET AUDIENCE
This is a maintenance course aimed at system operators responsible for troubleshooting the system by collecting logs and packets on broadband PTT network and services.

COURSE OBJECTIVES
By the end of the course, the student will be able to:
- Operate on the field utilities tool and use all the features available on the tool.
- Collect the logs from different subsystems on WAVE platforms and WAVE Gateway platforms.
- Collect the packets at appropriate interfaces from different subsystems on WAVE platforms and WAVE Gateway platforms.
- Locate technical reference documentation providing further detail.

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

PREREQUISITES
None

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.

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

PREREQUISITES
None

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