



Customer Training Catalog Training Programs IMS



HUAWEI
HUAWEI Learning Service
2015



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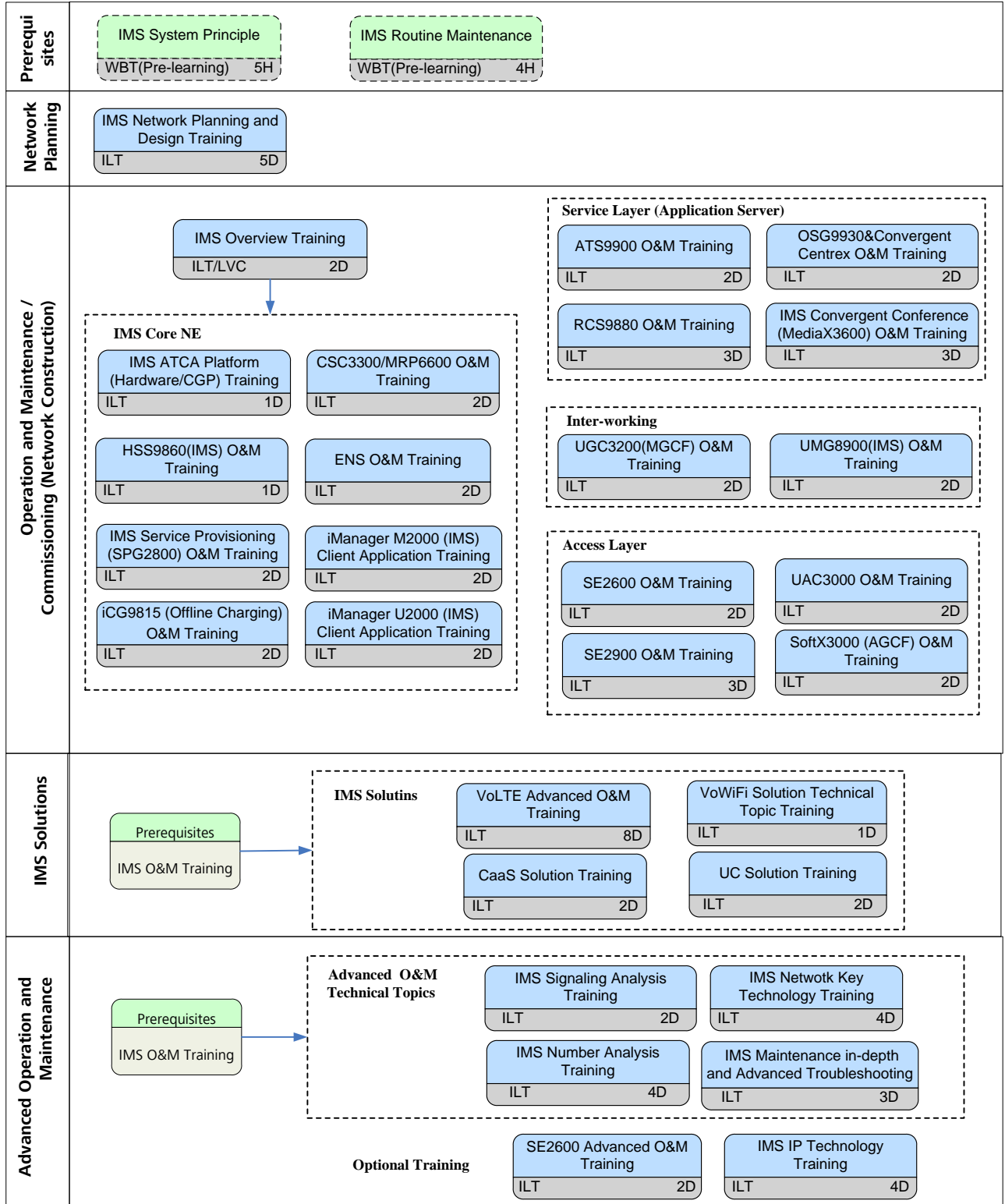
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1 Training Path

1.1 IMS Training Path



Remark:

- **IMS Overview Training:** suit for all technical personnel and new employee.
- **IMS Operation and Maintenance Training** (include IMS products and functional modules): suit for O&M engineers (2nd line maintenance) of IMS Core equipment maintenance and network management center.
- **IMS Solution Operation and Maintenance Training** (include convergent conference, VoLTE, etc)
- **IMS Advanced Operation and Maintenance Training** (advanced technical topics): suit for senior O&M engineers (3rd line maintenance or specialist) of IMS core equipment maintenance and network management center.
- **IMS Network Planning and Design Training:** suit for IMS network design engineers.

For further details about the training programs and courses designed, please refer the program description and course description in the training catalog.

2 Training Programs

IMS Training Programs are designed as follows:

Training Programs	Level	Duration (working days)	Training Location	Class Size
Managers				
IMS System Overview Training	I	0.5		6 ~ 12
Core Network Technology Evolution Training	II	1		6 ~ 12
IMS O&M Training				
IMS Overview Training	I	2		6 ~ 12
IMS ATCA Platform (Hardware/CGP) Training	II	1		6 ~ 12
CSC3300/MRP6600 Operation and Maintenance Training	II	2		6 ~ 12
HSS9860 (IMS) Operation and Maintenance Training	II	1		6 ~ 12
ENS Operation and Maintenance Training	II	2		6 ~ 12
IMS Service Provisioning (SPG2800) Operation and Maintenance Training	II	2		6 ~ 12
iCG9815 (offline charging) Operation and Maintenance Training	II	2		6 ~ 12
UGC3200 (MGCF) Operation and Maintenance Training	II	2		6 ~ 12
UMG8900(IMS) Operation and Maintenance Training	II	2		6 ~ 12
ATS9900 Operation and Maintenance Training	II	2		6 ~ 12

OSG9930&Convergent Centrex Operation and Maintenance Training	II	2		6 ~ 12
SE2600 Operation and Maintenance Training	II	2		6 ~ 12
SE2900 Operation and Maintenance Training	II	3		6 ~ 12
SoftX3000 (AGCF) Operation and Maintenance Training	II	2		6 ~ 12
UAC3000 Operation and Maintenance Training	II	2		6 ~ 12
iManager M2000 (IMS) Client Application Operation and Maintenance Training	II	2		6 ~ 12
iManager U2000 (IMS) Client Application Operation and Maintenance Training	II	2		6 ~ 12
IMS Solution Maintenance Engineers				
IMS Convergent Conference Operation and Maintenance(MediaX3600) Training	II	3		6 ~ 12
RCS9880 Operation and Maintenance Training	II	3		6 ~ 12
VoWiFi Solution (IMS) Technical Training	II	1		6
UC Solution Operation and Maintenance Training	III	2		6
CaaS Solution Operation and Maintenance Training	III	2		6
VoLTE Solution (IMS) Advanced Operation and Maintenance Training	IV	8		6 ~ 12
IMS Advanced O&M Training for System Maintenance Engineers				
IMS Signaling Analysis Training	III	2		6 ~ 12
IMS Number Analysis Training	III	4		6 ~ 12
IMS Network Key Technology Training	III	4		6 ~ 12
IMS Maintenance in-depth and Advanced Troubleshooting Training	III	3		6 ~ 12
SE2600 Advanced Operation and Maintenance Training	III	2		6 ~ 12
IMS IP Technology Training	III	4		6 ~ 12
Network Planning and Design Engineers				
IMS Network Planning and Design Training	IV	5		6 ~ 12
WBT				
IMS System Principle (WBT)	I	5 h		No limit

IMS Routine Maintenance (WBT)	II	4 h		No limit
VoLTE Solution Introduction (WBT)	II	2 h		No limit
M-learning				
VoLTE Solution Introduction (M-learning)	II	1.5 h		No limit

Level Description: I : Basic Course II : Intermediate Course III: Advanced Course IV: Expert Course

3 IMS Training Programs

3.1 IMS Product Training

3.1.1 IMS System Overview Training

Training Path

IMS System Overview		
OZA03	Lecture	0.5d

Target Audience

Telecom Managers

Prerequisites

- A general understanding of telecommunication and data communication

Objectives

On completion of this program, the participants will be able to:

- Describe the basic concepts, advantages, system architecture of IMS
- Describe the functions of the IMS network elements
- Describe the number and address planning in IMS network
- Describe the basic register and session flow of IMS

Duration

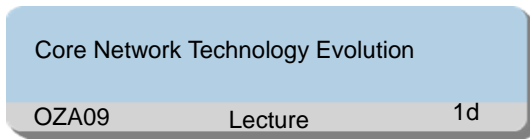
0.5 working day

Class Size

Min 6, Max 12

3.1.2 Core Network Technology Evolution Training

Training Path



Target Audience

Technical support personnel, technical specialist

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will be able to:

- Describe the current technology application status of core network, including the basic function, networking, and application
- Describe the technology evolution and development direction of the fixed network and mobile network
- Describe the core network evolution

Duration

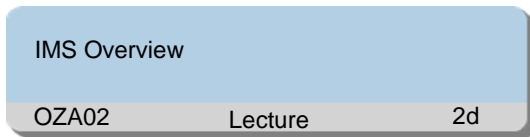
1 working day

Class Size

Min 6, Max 12

3.1.3 IMS Overview Training

Training Path



Target Audience

All technical personnel

Prerequisites

- A general understanding of telecommunication and data communication

Objectives

On completion of this program, the participants will be able to:

- Describe the basic concepts, advantages, system architecture of IMS
- Describe the functions of the IMS network

elements

- Describe the number and address planning in IMS network
- Describe the IMS register flow and session flow
- Describe the SIP protocol used in IMS domain, including SIP messages types, structure
- Describe the SIP header fields and typical signaling flows
- Outline the key features of Huawei IMS solution in hardware system, network, services, etc

Duration

2 working days

Class Size

Min 6, Max 12

3.1.4 IMS ATCA Platform (Hardware/CGP) Training

Training Path

IMS ATCA Platform (Hardware/CGP) Operation and Maintenance		
OZC00	Lecture, Lab, E-lab	1d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will be able to:

- Describe the hardware structure, the power system and the board functions of ATCA platform, as well as the monitor system
- Perform the basic operation and maintenance, the performance and alarm management by the CGP client

Duration

1 working day

Class Size

Min 6, Max 12

3.1.5 CSC3300/MRP6600 Operation and Maintenance Training

Training Path

CSC3300/MRP6600 Operation and Maintenance		
OZC01	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe the location, interfaces, main functions and basic features of CSC3300/MRP6600
- Describe the data configuration procedure and method
- Complete the service data configuration
- Complete the routine maintenance tasks of CSC3300/MRP6600

Duration

2 working days

Class Size

Min 6, Max 12

3.1.6 HSS9860 (IMS) Operation and Maintenance Training

Training Path

HSS9860 (IMS) Operation and Maintenance		
OZC02	Lecture, Lab, E-lab	1d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe the location, interfaces, main functions and basic features of HSS9860 in IMS network
- Describe the data configuration procedure and method
- Complete the data configuration of HSS9860 FE
- Complete the routine maintenance tasks of HSS9860 FE

Duration

1 working day

Class Size

Min 6, Max 12

3.1.7 ENS Operation and Maintenance Training

Training Path

ENS Operation and Maintenance		
OZC06	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Explain the working principle of ENUM and DNS server
- Describe the system architecture of ENS
- Accomplish the data configuration in ENS for ENUM and DNS function
- Perform the routine operation and maintenance tasks of ENS

Duration

2 working days

Class Size

Min 6, Max 12

3.1.8 IMS Service Provisioning (SPG2800) Operation and Maintenance Training

Training Path

IMS Service Provisioning (SPG2800) Operation and Maintenance		
OZC11	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe basic concepts of IMS subscription (IMPI and IMPU, iFC, Trigger Point, etc)
- Describe the service provisioning principle, procedure and operation by SPG2800
- Complete the service provisioning by SPG2800 to HSS9860
- Perform the basic service test and verification

Duration

2 working days

Class Size

Min 6, Max 12

3.1.9 iCG9815 (offline charging) Operation and Maintenance Training

Training Path

iCG9815 (offline charging) Operation and Maintenance		
OZC04	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe charging principle of IMS
- Describe the network location of iCG9815
- Describe the system functions and specification of iCG9815
- Use iCG9815 CDR console to query the CDRs
- Perform the routine operation and maintenance tasks (daily, weekly and monthly)
- Perform the related data configuration
- Describe the data configuration flow and validity of subscription

Duration

2 working days

Class Size

Min 6, Max 12

3.1.10 UGC3200 (MGCF) Operation and Maintenance Training

Training Path

UGC3200 (MGCF) Operation and Maintenance		
OZE05	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe product location, interfaces, function/features and system structure of UGC3200 (MGCF) Product
- Describe UGC3200 (MGCF) system processing flows, including signaling process, route process and number process
- Perform the data configuration of UGC3200 (MGCF), including local office data configuration, interconnection data configuration, signaling data configuration, charging data configuration and basic number analysis data configuration
- Execute the routine operation and maintenance tasks, including devices status check and alarm check, etc
- Perform the basic troubleshooting

Duration

2 working days

Class Size

Min 6, Max 12

3.1.11 UMG8900(IMS) Operation and Maintenance Training

Training Path

UMG8900(IMS) Operation and Maintenance		
OZE04	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and UGC3200(MGCF) Operation and Maintenance Training

Objectives

On completion of this program, the participants will be able to:

- Describe the network topology, services, functions, system structure, board functions, board indicators, networking, applications and technical specifications of UMG8900
- Outline the service data configuration steps of UMG8900
- Perform the common service data configuration
- Perform the routine operation and maintenance of UMG8900 (database backup, alarm management, device management, protocol tracing, service management)

Duration

2 working days

Class Size

Min 6, Max 12

3.1.12 ATS9900 Operation and Maintenance Training

Training Path

ATS9900 Operation and Maintenance		
OZS02	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe the location, interfaces, main functions and basic features of ATS9900
- Describe the data configuration procedure and method
- Complete ATS9900 number analysis configuration
- Complete ATS9900 interworking data configuration
- List the major services supported by ATS9900
- Perform the service test and verification
- Complete the routine maintenance tasks

Duration

2 working days

Class Size

Min 6, Max 12

3.1.13 OSG9930&Convergent Centrex Operation and Maintenance Training

Training Path

OSG9930/Convergent Centrex Operation and Maintenance

OZS06 Lecture, Lab, E-lab 2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and ATS9900 Operation and Maintenance Training

Objectives

On completion of this program, the participants will be able to:

- List the major Convergent Centrex services of ATS9900
- Describe the definition and signaling flow of the Centrex services
- Perform the data configuration of Convergent Centrex
- Perform the Centrex services provision via the SPG2800 or OSG9930
- Perform the Centrex service verification
- Perform the operation and maintenance of OSG9930 and U-Path

Duration

2 working days

Class Size

Min 6, Max 12

3.1.14 SE2600 Operation and Maintenance Training

Training Path

SE2600 Operation and Maintenance		
OZD04	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will be able to:

- Describe related concepts of SBC, working principle of full proxy
- Describe main functions and features of SE2600 in IMS network
- Describe call flow analysis
- Describe hardware structure of SE2600
- Perform interconnection data configuration
- Perform service data configuration
- Perform maintenance tasks for SE2600
- Perform SE2600 troubleshooting

Duration

2 working days

Class Size

Min 6, Max 12

3.1.15 SE2900 Operation and Maintenance Training

Training Path

SE2900 Operation and Maintenance			
OZD06	Lecture, Lab, E-lab	3d	

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will be able to:

- Describe related concepts of SBC, working principle of full proxy
- Describe main functions and features of SE2900 in IMS network
- Describe SBC related signaling flow
- Describe hardware structure of SE2900
- Perform interconnection data configuration
- Perform service data configuration
- Perform maintenance tasks for SE2900

Duration

3 working days

Class Size

Min 6, Max 12

3.1.16 SoftX3000 (AGCF) Operation and Maintenance Training

Training Path

SoftX3000 (AGCF) Operation and Maintenance		
OZE02	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will

be able to:

- Describe the AGCF functions of SoftX3000
- Describe the SoftX3000(AGCF) hardware structure
- Explain AGCF registration process and basic call flow
- Describe the SoftX3000(AGCF) data configuration method and procedure
- Complete the data configuration and verify the system status
- Perform the routine operation and maintenance tasks

Duration

2 working days

Class Size

Min 6, Max 12

3.1.17 UAC3000 Operation and Maintenance Training

Training Path

UAC3000 Operation and Maintenance		
OZE03	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will be able to:

- Describe the network location, product function and features, network structure, system structure
- Describe the signaling procession procedures of UAC3000
- Configure the hardware, network element and module data
- Configure the system data
- Configure the interworking data
- Configure the subscriber data
- Perform the routine maintenance

Duration

2 working days

Class Size

Min 6, Max 12

3.1.18 iManager M2000 (IMS) Client Application Operation and Maintenance Training

Training Path

iManager M2000 (IMS) Client Application Operation and Maintenance		
OZO03	Lecture, Lab, E-lab	2d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will be able to:

- Outline the product location, services and

functions of iManager M2000 in IMS

- Describe the hardware configuration and software configuration of iManager M2000(IMS)
- Create accounts and set the authority for system operator
- Add IMS elements and build up the network topology
- Monitor the running status of IMS elements
- Perform alarm browsing and processing
- Perform log browsing and dumping
- Execute M2000 database backing up and restoring
- Execute the IMS routine maintenance tasks via M2000 client

Duration

2 working days

Class Size

Min 6, Max 12

3.1.19 iManager U2000 (IMS) Client Application Operation and Maintenance Training

Training Path

iManager U2000 (IMS) Client Application
Operation and Maintenance

OZO09 Lecture, Lab, E-lab 2d

Target Audience

Operation and maintenance personnel, NMC
operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of IMS Overview training

Objectives

On completion of this program, the participants will be able to:

- Outline the product location, services and functions of iManager U2000 in IMS

- Describe the hardware configuration and software configuration of iManager U2000(IMS)
- Create accounts and set the authority for system operator
- Add IMS elements and build up the network topology
- Monitor the running status of IMS elements
- Perform alarm browsing and processing
- Perform log browsing and dumping
- Execute U2000 database backing up and restoring
- Execute the IMS routine maintenance tasks via U2000 client

Duration

2 working days

Class Size

Min 6, Max 12

3.1.20 IMS Convergent Conference Operation and Maintenance(MediaX3600)

Training

Training Path

IMS Convergent Conference Operation and Maintenance (MediaX3600)

OZS03 Lecture, Lab, E-lab 3d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and IMS ATCA Platform (Hardware/CGP) Training

Objectives

On completion of this program, the participants will

be able to:

- Explain the principles and the related concepts about multimedia conference
- Describe the typical multimedia conference working flow
- Explain the product location, networking, features and functions of MediaX3600
- Perform the local office and interconnection office data configuration
- Perform the routine operation and maintenance tasks of MediaX3600
- Describe the troubleshooting method for the typical cases

Duration

3 working days

Class Size

Min 6, Max 12

3.1.21 RCS9880 Operation and Maintenance Training

Training Path

RCS9880 Operation and Maintenance		
OZS08	Lecture, Lab, E-lab	3d

Target Audience

Operation and maintenance personnel, NMC operator, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Overview Training and Hardware Platform Training

Objectives

On completion of this program, the participants will be able to:

- Describe RCS Solution, Explain the product location, networking, features and functions of RCS9880.
- Describe the typical RCS services and processing flow.
- Perform the RCS9880 data configuration.
- Perform the routine operation and maintenance tasks of RCS9880.
- Describe the troubleshooting method of RCS9880.

Duration

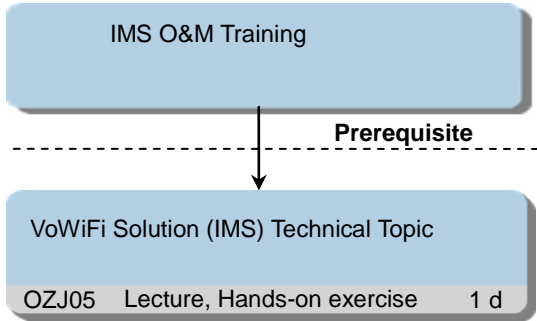
3 working days

Class Size

Min 6, Max 12

3.1.22 VoWiFi Solution (IMS) Technical Training

Training Path



Target Audience

VoWiFi Solution Operation and maintenance personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication

equipments

- Successful completion of the IMS Operation and Maintenance Training

Objectives

On completion of this program, the participants will be able to:

- Describe the VoWiFi solution and networking.
- Describe VoWiFi solution signaling processing flow, including network attachment, IMS register and call flow.
- Perform the VoWiFi solution data configuration in IMS network.

Duration

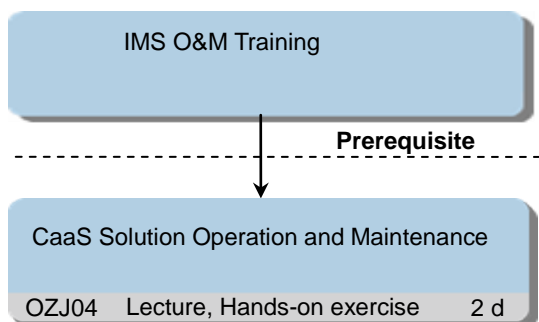
1 working day

Class Size

Min 6, Max 12

3.1.23 CaaS Solution Operation and Maintenance Training

Training Path



Target Audience

CaaS Solution Operation and maintenance personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Operation and Maintenance Training, including RCS and Mediac3600

Objectives

On completion of this program, the participants will be able to:

- Explain CaaS solution, describe the product location, hardware, networking, services and features of CaaS.
- Describe the typical CaaS service and service processing flow.
- Perform the interconnection data configuration, service data configuration.
- Perform the operation and maintenance tasks of CaaS features..
- Perform the routine operation and maintenance tasks of CaaS.
- Describe the troubleshooting method for the typical cases of CaaS.

Duration

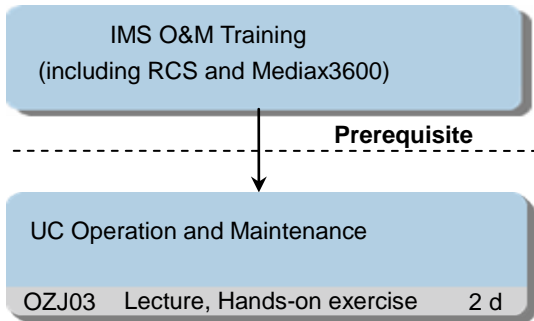
2 working days

Class Size

Min 6, max 12

3.1.24 UC Operation and Maintenance Training

Training Path



Target Audience

UC Solution Operation and maintenance personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS Operation and Maintenance Training, including RCS and Mediac3600

Objectives

On completion of this program, the participants will be able to:

- Explain UC Solution, describe the product location, hardware, networking, services and features of UC.
- Describe the typical UC service and service processing flow.
- Perform the interconnection data configuration, service data configuration.
- Perform the operation and maintenance tasks of UC features..
- Perform the routine operation and maintenance tasks of UC.
- Describe the troubleshooting method for the typical cases of UC.

Duration

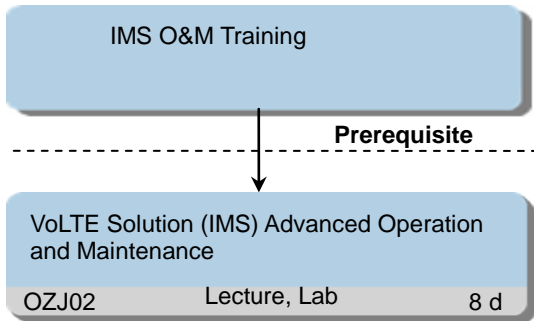
2 working days

Class Size

Min 6, Max 12

3.1.25 VoLTE Solution (IMS) Advanced Operation and Maintenance Training

Training Path



Target Audience

VoLTE Operation and maintenance personnel, technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments
- Successful completion of the IMS O&M training
- Familiar with network structure and signaling process flow of CS/EPC

Objectives

On completion of this program, the participants will

be able to:

- Describe the network structure of VoLTE solution
- Describe the principles and networking of VoLTE basic calls
- Describe the eSRVCC principles, networking and deployment
- Describe the basic procedure of VoLTE service provisioning
- Perform the VoLTE basic call data configuration
- Perform the eSRVCC data configuration
- Describe the E2E QoS solution in VoLTE
- Perform the QoS data configuration
- Describe the principles of IP short messages in the VoLTE solution
- Describe the main flow of IP SM in the VoLTE solution
- Perform VoLTE Troubleshooting

Duration

8 working days

Class Size

Min 6, Max 12

3.1.26 IMS Signaling Analysis Training

Training Path

IMS Signaling Analysis		
OZB00	Lecture, Lab, E-lab	2d

Target Audience

Technical support personnel, senior NMC operation personnel, technical specialist

Prerequisites

- Successful completion of the IMS Operation and Maintenance Training
- At least three years experience in the operation and maintenance of telecommunication equipments
- At least one year experience in the operation and maintenance of HUAWEI IMS equipments

Objectives

On completion of this program, the participants will be able to:

- Describe the major SIP headers function and change in IMS registration and session flow
- Describe the AVPs content in the Diameter messages in IMS registration flow
- Describe the signaling routing principle of the IMS session flow
- Perform the troubleshooting of IMS registration and session

Duration

2 working days

Class Size

Min 6, Max 12

3.1.27 IMS Number Analysis Training

Training Path

IMS Number Analysis		
OZB01	Lecture, Lab, E-lab	4d

Target Audience

Technical support personnel, senior NMC operation personnel, technical specialist

Prerequisites

- Successful completion of the IMS Operation and Maintenance Training
- At least three years experience in the operation and maintenance of telecommunication equipments
- At least one year experience in the operation and maintenance of HUAWEI IMS equipments

Objectives

On completion of this program, the participants will be able to:

- Perform number analysis of CSC3300 and ATS9900
- Perform number analysis of UGC3200 (MGCF)
- Describe number change function and execute related configuration in CSC3300 and ATS9900
- Execute IMS Call Barring configuration

Duration

4 working days

Class Size

Min 6, Max 12

3.1.28 IMS Network Key Technology Training

Training Path

IMS Network Key Technology		
OZB02	Lecture, Lab, E-lab	4d

Target Audience

Technical support personnel, senior NMC operation personnel, technical specialist

Prerequisites

- Successful completion of the IMS Operation and Maintenance Training
- At least three years experience in the operation and maintenance of telecommunication equipments
- At least one year experience in the operation and maintenance of HUAWEI IMS equipments

Objectives

On completion of this program, the participants will be able to:

- Describe IMS geography redundancy solution (architecture, signaling flow and data configuration)
- Describe Business Trunk concept and perform the related data configuration
- Describe Emergency Call solution and perform the related data configuration
- Describe IMS access network solution
- Describe iFC principle

Duration

4 working days

Class Size

Min 6, Max 12

3.1.29 IMS Maintenance in-depth and Advanced Troubleshooting Training

Training Path

IMS Maintenance in-depth and Advanced Troubleshooting		
OZB06	Lecture, Lab, E-lab	3d

Target Audience

Technical support personnel, senior NMC operation personnel, technical specialist

Prerequisites

- Successful completion of the IMS Operation and Maintenance Training
- At least three years experience in the operation and maintenance of telecommunication equipments
- At least one year experience in the operation and maintenance of HUAWEI IMS equipments

Objectives

On completion of this program, the participants will

be able to:

- Perform IMS advanced maintenance tasks (CGP system administration, obtain and query Log file, software patch operation and MRP6600 system administration)
- Perform database backup and restoration
- Perform IMS Performance Management operation
- Describe the general troubleshooting principle and procedure
- Perform the IMS registration and session management troubleshooting
- Perform the IMS service troubleshooting

Duration

3 working days

Class Size

Min 6, Max 12

3.1.30 SE2600 Advanced Operation and Maintenance Training

Training Path

SE2600 Advanced Operation and Maintenance		
OZB07	Lecture, Lab, E-lab	2d

Target Audience

SE2600 Technical support personnel, senior NMC operation personnel, technical specialist

Prerequisites

- Successful completion of the SE2600 Operation and Maintenance Training
- At least three years experience in the operation and maintenance of telecommunication equipments
- At least one year experience in the operation and maintenance of HUAWEI IMS equipments

Objectives

On completion of this program, the participants will be able to:

- Configure the security and reliability feature of SE2600.
- Configure the QoS control feature of SE2600.
- Configure the protocol process features of SE2600.
- Describe the troubleshooting method of SE2600.
- Analyze and locate the typical trouble of SE2600.

Duration

2 working days

Class Size

Min 6, Max 12

3.1.31 IMS IP Technology Training

Training Path

IMS IP Technology Training		
OZD03	Lecture, Lab	4d

Target Audience

Core network commissioning engineers, Operation and maintenance engineers

Prerequisites

- At least one year experience of operation and maintenance of IMS equipments

Objectives

On completion of this program, the participants will be able to:

- Outline the structure of IP Bear network and the main protocols used
- Outline the IP fundamental knowledge and the application in IMS
- Describe the IP networking inside IMS

- Describe the hardware of DATACOM equipments used in IMS
- Perform the operation and maintenance of the DATACOM equipments used in IMS
- Describe the IP reliability solutions in IMS
- Perform the data configuration of the IP reliability solutions
- Outline the QoS requirements for IP bear network
- Apply the QoS methods in IMS
- When there happens the IP related trouble, basically complete trouble location and recover the service

Duration

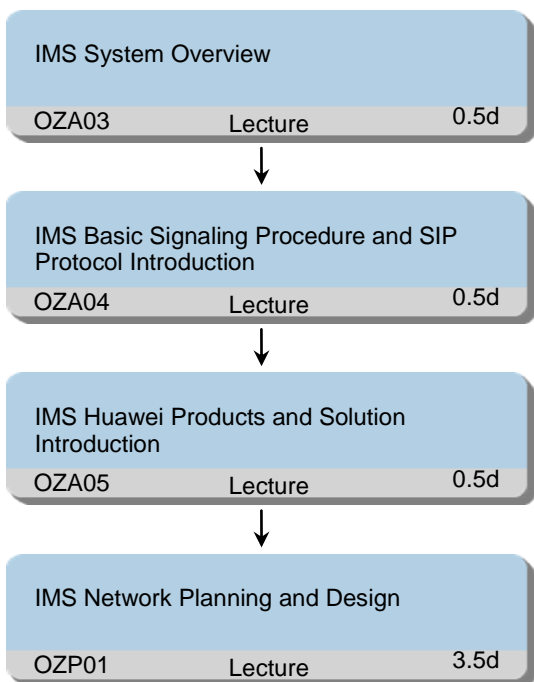
4 working days

Class Size

Min 6, Max 12

3.1.32 IMS Network Planning and Design Training

Training Path



Target Audience

Telecom Managers, IMS Network Planning and Design personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will be able to:

- Describe the basic concepts, advantages,

system architecture of IMS

- Describe the functions of the IMS network elements
- Describe the number and address planning in IMS network
- Describe the basic register and session flow of IMS
- Describe the typical register and session procedures in IMS system
- Describe the SIP protocol used in IMS domain, including SIP messages types, structure
- Describe the SIP typical signaling flows
- Describe the ATCA Hardware of IMS
- Describe the function, feature and system structure of Huawei IMS products
- Describe Huawei IMS solutions
- Describe IMS network planning and designing Overview
- Describe IMS networking structure design
- Describe IMS network IP interconnection
- Describe IMS interconnection with PSTN/PLMN
- Describe IMS access network design
- Describe IMS bandwidth calculation
- Describe IMS support system interconnection (NMS and charging system)

Duration

5 working days

Class Size

Min 6, Max 12

3.2 WBT

3.2.1 IMS System Principle (WBT)

Training Path

IMS System Principle (WBT)		
OZA99	WBT	5h

Target Audience

Operation and maintenance personnel, NMC operator

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will

be able to:

- Describe the basic concept and principle of IMS
- Describe the SIP protocol stack and signaling procession flow
- Describe the Diameter protocol stack and signaling procession flow
- Describe the basic working principle of SBC
- Describe the basic working principle of DNS/ENUM
- Describe the offline charging principle of IMS

Duration

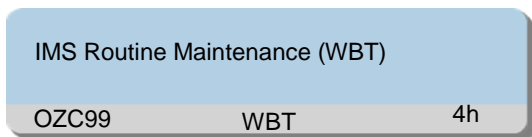
5 hours

Class Size

No limit

3.2.2 IMS Routine Maintenance (WBT)

Training Path



Target Audience

Operation and maintenance personnel, NMC operator

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will be able to:

- Perform the common operation and maintenance of IMS
- Perform the subscriber service provision of IMS
- Complete the routine maintenance tasks of CSC3300/HSS9860
- Complete the routine maintenance tasks of ENS
- Complete the routine maintenance tasks of iCG9815
- Complete the routine maintenance tasks of SE2600

Duration

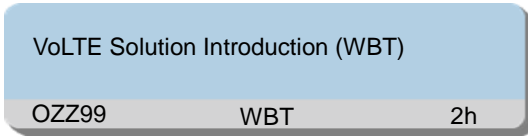
4 hours

Class Size

No limit

3.2.3 VoLTE Solution Introduction (WBT)

Training Path



Target Audience

VoLTE Operation and maintenance personnel,
technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will be able to:

- Describe related concepts of VoLTE
- Describe the network structure and network evolution
- Describe the basic flows of VoLTE (registration and call)
- Describe the eSRVCC handover procedure

Duration

2 hours

Class Size

No limit

3.3 M-Learning

3.3.1 VoLTE Introduction (M-Learning)

Training Path

VoLTE Introduction (M-Learning)		
OZZ09	M-Learning	1.5h

Target Audience

VoLTE Operation and maintenance personnel,
technical support personnel

Prerequisites

- A general understanding of telecommunication and data communication
- At least one year experience in the operation and maintenance of telecommunication equipments

Objectives

On completion of this program, the participants will be able to:

- Describe related concepts, network structure, service flow, key technology of VoLTE solution

Duration

1.5 hours

Class Size

No limit