

# Customer Training Catalog Course Descriptions IMS



**HUAWEI**  
**HUAWEI Learning Service**  
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## 1.1 Training Course Descriptions

IMS Training Courses are designed as follows:

Code	Training Courses	Level	Duration (working days)	Training Location	Class Size
<b>IMS Training Courses</b>					
OZA03	IMS System Overview	I	0.5		6 ~ 12
OZA04	IMS Basic Signaling Procedure and SIP Protocol Introduction	I	0.5		6 ~ 12
OZA02	IMS Overview	I	2		6 ~ 12
OZC00	IMS ATCA Platform (Hardware/CGP) Operation and Maintenance	II	1		6 ~ 12
OZC01	CSC3300/MRP6600 Operation and Maintenance	II	2		6 ~ 12
OZC02	HSS9860 (IMS) Operation and Maintenance	II	1		6 ~ 12
OZC06	ENS Operation and Maintenance	II	2		6 ~ 12
OZC11	IMS Service Provisioning (SPG2800) Operation and Maintenance	II	2		6 ~ 12
OZC04	iCG9815 (offline charging) Operation and Maintenance	II	2		6 ~ 12
OZE05	UGC3200 (MGCF) Operation and Maintenance	II	2		6 ~ 12
OZE04	UMG8900(IMS) Operation and Maintenance	II	2		6 ~ 12
OZS02	ATS9900 Operation and Maintenance	II	2		6 ~ 12
OZS06	OSG9930/Convergent Centrex Operation and Maintenance	II	2		6 ~ 12
OZD04	SE2600 Operation and Maintenance	II	2		6 ~ 12
OZD06	SE2900 Operation and Maintenance	II	3		6 ~ 12
OZE02	SoftX3000 (AGCF) Operation and Maintenance	II	2		6 ~ 12
OZE03	UAC3000 Operation and Maintenance	II	2		6 ~ 12
OZO03	iManager M2000 (IMS) Client Application Operation and Maintenance	II	2		6 ~ 12
OZO09	iManager U2000 (IMS) Client Application Operation and Maintenance	II	2		6 ~ 12

OZS03	IMS Convergent Conference Operation and Maintenance(MediaX3600)	II	3		6 ~ 12
OZS08	RCS9880 Operation and Maintenance	II	3		6 ~ 12
OZJ05	VoWiFi Solution (IMS) Technical Topic	II	1		6 ~ 12
OZJ04	CaaS Solution Operation and Maintenance	III	2		6 ~ 12
OZJ03	UC Operation and Maintenance	III	2		6 ~ 12
OZJ02	VoLTE Solution (IMS) Advanced Operation and Maintenance	IV	8		6 ~ 12
OZB00	IMS Signaling Analysis	III	2		6 ~ 12
OZB01	IMS Number Analysis	III	4		6 ~ 12
OZB02	IMS Network Key Technology	III	4		6 ~ 12
OZB06	IMS Maintenance in-depth and Advanced Troubleshooting	III	3		6 ~ 12
OZB07	SE2600 Advanced Operation and Maintenance	III	2		6 ~ 12
OZD03	IMS IP Technology Training	III	4		6 ~ 12
OZP01	IMS Network Planning and Design	IV	3.5		6 ~ 12
OZA09	Core Network Technology Evolution	II	1		6 ~ 12
OZA99	IMS System Principle (WBT)	I	5 h		No limit
OZC99	IMS Routine Maintenance (WBT)	II	4 h		No limit
OZZ99	VoLTE Solution Introduction (WBT)	II	2 h		No limit
OZZ09	VoLTE Introduction (M-Learning)	II	1.5 h		No limit

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## 1.2 IMS Training Course Descriptions

### 1.2.1 OZA03 IMS System Overview



#### Objectives

On completion of this course, 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

#### Target Audience

Telecom Managers

#### Prerequisites

- A general understanding of telecommunication and data communication

#### Content

- IMS structure and features
- The functions of IMS network elements
- The interfaces and the protocols in the IMS network
- The number and the address format which are used in IMS network
- The basic signaling procedures
- Huawei IMS solution introduction

#### Training Methods

Lecture

#### Duration

0.5 working day

#### Class Size

Min 6, max 12

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## 1.2.2 OZA04 IMS Basic Signaling Procedure and SIP Protocol Introduction



### Objectives

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

- 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

### Target Audience

Telecom Managers

### Prerequisites

- A general understanding of telecommunication and data communication

### Content

- The typical procedures in IMS system, including register and session procedure
- SIP protocol used in IMS domain, including SIP messages types, structure
- SIP header fields
- SIP typical signaling flows

### Training Methods

Lecture

### Duration

0.5 working day

### Class Size

Min 6, max 12

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### 1.2.3 OZA02 IMS Overview



#### Objectives

On completion of this course, 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

#### Target Audience

All technical personnel

#### Prerequisites

- A general understanding of telecommunication and data communication

#### Content

- IMS structure and features
- The functions of IMS network elements
- The interfaces and the protocols in the IMS network
- The number and the address format which are used in IMS network
- The basic signaling procedures
- Huawei IMS solution introduction
- The typical procedures in IMS system, including register and session procedure
- SIP protocol used in IMS domain, including SIP messages types, structure
- SIP header fields
- SIP typical signaling flows

#### Training Methods

Lecture

#### Duration

2 working days

#### Class Size

Min 6, max 12

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## 1.2.4 OZC00 IMS ATCA Platform (Hardware/CGP) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- IMS hardware structure
- Power system of ATCA platform
- Monitor system
- Board functions of ATCA platform
- CGP product location
- CGP interfaces
- CGP function and features
- CGP system structure
- CGP operation
- ATCA hardware maintenance
- Software maintenance
- NE maintenance via CGP

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

1 working day

### Class Size

Min 6, max 12



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## 1.2.5 OZC01 CSC3300/MRP6600 Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- CSC3300 product location
- CSC3300 interfaces
- Main functions and basic features of CSC3300

- Data configuration flow
- CSC3300 basic data configuration
- CSC3300 domain data configuration
- CSC3300 interworking data configuration
- CSC3300 operation and maintenance (hardware/NE status check, IP connection status check, access network data check, charging data check, user management)
- Product location, interfaces, system structure, functions and service flow of MRP6600
- MRFC data configuration
- MRP6600 hardware data configuration
- MRP6600 NE/module and local data configuration
- MRP6600 resource and interworking data configuration
- MRP6600 special feature data configuration
- MRP6600 operation and maintenance (board and process status checking, link status and resource status maintenance, signaling tracing)

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.6 OZC02 HSS9860 (IMS) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Product location, interfaces, main functions and basic features of HSS9860
- HSS9860 data configuration flow
- HSS9860 basic data configuration
- HSS9860 interworking data configuration
- HSS9860 operation and maintenance (office information management, user management, etc)

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

1 working day

### Class Size

Min 6, max 12

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## 1.2.7 OZC06 ENS Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- DNS/ENUM processing flow in IMS

- DNS function and principle
- ENUM function and principle
- Application of DNS/ENUM
- ENS product introduction
- ENS network structure
- ENS functions
- ENS application in IMS
- ENS data management system
- SPG introduction
- PGW Web LMT introduction
- Service data configuration
- Service data provisioning
- ENS routine operation and maintenance
- Restart service(MML command)
- Performance statistics
- ENS data backup and restoration

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.8 OZC11 IMS Service Provisioning (SPG2800) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- SPG2800 system structure, main functions
- System management, service configuration, service provisioning, batch management in the SPG portal
- Basic concepts of IMS subscription(IMPI and IMPU, iFC, Trigger Point, etc)
- SPG portal operation
- SPG2800 provision flow and subscription provisioning
- Template management
- SPG2800 user status query

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.9 OZC04 iCG9815 (offline charging) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Basic concepts of offline charging
- SIP message analysis related to offline charging
- CDR format
- Product location, interfaces, system structure, functions and service flow of iCG9815
- iCG9815 local data configuration
- iCG9815 interworking data configuration
- CDR Console operation
- iCG9815 operation and maintenance (board and process status checking, link status)

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.10 OZE05 UGC3200 (MGCF) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Hardware structure, main function, product location and working flow of UGC3200
- UGC3200(MGCF) NE/module and local data configuration
- Interworking data configuration with MGW, IMS Core and the legacy network
- UGC3200 operation and maintenance (hardware/NE status check, IP connection status check, interconnection data check, charging data check)

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.11 OZE04 UMG8900(IMS) Operation and Maintenance



### Objectives

On completion of this course, 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)

### 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

### Content

- System functions of UMG8900
- UMG8900 hardware structure
- Function, indicators, ports and working mode of each board
- MGW and H248 interface data configuration
- IP bearer data configuration
- Trunk data(interworking data) configuration to MSC and PSTN
- Signaling data configuration
- UMG8900 OMU principle
- UMG8900 client operation
- UMG8900 routine maintenance task

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.12 OZS02 ATS9900 Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Product location, interfaces, main functions and basic features of ATS9900
- ATS9900 hardware data configuration
- ATS9900 NE and module data configuration
- Number analysis configuration of ATS9900
- ATS9900 interworking data configuration
- Service definition
- Service provisioning steps of ATS9900
- Examples of the ATS9900 service provisioning

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12



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## 1.2.13 OZS06 OSG9930/Convergent Centrex Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- IMS Convergent Centrex solution (relate to ATS9900, OSG9930 and U-Path)

- System structure, interfaces, functions and features of Convergent Centrex
- Convergent Centrex data configuration of ATS9900
- Main services provided by Centrex
- Basic concepts and steps of Centrex service provisioning, relate to ATS9900, SPG2800 and OSG9930
- Centrex Service Provisioning Examples
- Networking Schemes of the OSG9930
- Interfaces and Links of the OSG9930
- OSG9930 Networking
- U-Path Introduction
- Overview of OSG9930 Basic Data Configuration
- ME, Module, and Local Data Configuration
- Interworking Data Configuration
- U-Path Configuration
- Common Operation and Maintenance of U-Path
- Common Troubleshooting of U-Path

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.14 OZD04 SE2600 Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Related concepts of SBC, working principle of all proxy
- Main functions of SE2600 in IMS
- Call flow analysis
- Hardware structure of SE2600
- SE2600 product features
- SE2600 hardware configuration
- SE2600 service configuration
- Configuration example of SE2600
- Establishment of configuration environment
- Maintain the main functions of SE2600
- Basic maintenance commands

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.15 OZD06 SE2900 Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- Related concepts of SBC, working principle of

all proxy

- Main functions of SE2900 in IMS
- Signaling flow analysis
- Hardware structure of SE2900
- SE2900 product features
- SE2900 hardware configuration
- SE2900 full proxy function configuration (A-SBC and I-SBC)
- Configuration example of SE2900
- Establishment of configuration environment
- Maintain the main functions of SE2900
- Basic maintenance commands
- Security feature of SE2900
- Redundancy of Core Network
- Flexible Routing
- SIP Header Manipulation
- Media Bypass
- Other features: such as QoS, CAC, ATCF/ATGW(only in A-SBC scenario)

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

3 working days

### Class Size

Min 6, max 12

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## 1.2.16 OZE02 SoftX3000 (AGCF) Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

#### Content

- AGCF product location
- SoftX3000 hardware and system structure
- AGCF Characteristics of SoftX3000
- Service flow of the product
- SoftX3000(AGCF) hardware data configuration
- SoftX3000(AGCF) subscriber data configuration
- SoftX3000(AGCF) interworking data configuration
- Overview of GUI
- SoftX3000(AGCF) system menu
- Authority operation
- Alarm operation
- Basic operation of database of SoftX3000(AGCF)

#### Training Methods

Lecture, Hands-on exercise, E-lab

#### Duration

2 working days

#### Class Size

Min 6, max 12

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## 1.2.17 OZE03 UAC3000 Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- UAC3000 product location
- Main functions and basic features of UAC3000
- Signaling procession procedure of UAC3000
- Data configuration flow
- UAC3000 hardware, network element and module data configuration
- UAC3000 system data configuration
- UAC3000 interworking data configuration
- UAC3000 subscriber data configuration
- UAC3000 routine operation and maintenance

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.18 OZO03 iManager M2000 (IMS) Client Application Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- M2000 product network structure, main features and typical configuration in IMS network
- SNMP protocol introduction
- M2000 user right management
- M2000 topology management for IMS network
- Fault management
- Performance management
- System monitor
- M2000 Database backup and restore
- M2000 IMS signaling trace
- M2000 service management

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.19 OZO09 iManager U2000 (IMS) Client Application Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- U2000 product network structure, main features and typical configuration in IMS network
- SNMP protocol introduction
- U2000 user right management
- U2000 topology management for IMS network
- Fault management
- Performance management
- System monitor
- U2000 Database backup and restore
- U2000 IMS signaling trace
- U2000 service management

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.20 OZS03 IMS Convergent Conference Operation and Maintenance(MediaX3600)



### Objectives

On completion of this course, 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

### 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

### Content

- Convergent Conference Solution Structure
- Interfaces and Protocols Introduction
- Key network element
- Key service and function
- Interworking with other system
- Typical service process flow
- Product location, interfaces, functions, features, system structure and work flows of MediaX3600
- MediaX360 module data configuration
- MediaX360 system data configuration, including charging and MRS data configuration, etc
- MediaX3600 operation and maintenance (check the running status, start and stop service, etc)
- MediaX3600 Web interface operation
- Record and play server introduction
- Interworking between MediaX3600 and MCU

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

3 working days

### Class Size

Min 6, max 12



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## 1.2.21 OZS08 RCS9880 Operation and Maintenance



### Objectives

On completion of this course, 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.

### 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

### Content

- RCS Development Trend
- RCS Solution Overview
- Key Technologies of the RCS Solution
- Relationships Between the RCS Solution and Other Solutions
- Basic Service Description
- IM Flow and File Transfer Flow
- Image and Video Sharing Flow
- IP SMS Flow

- Push Message Delivery Flow
- NAB Flow and Presence Flow
- Buddy Discovery Flow
- VoIP Flow
- Offline Charging Flow, Online Charging Flow
- RCS9880 Overview
- BMSuite Introduction
- RMC/ Presence/ CAB Introduction
- Report and RBI Introduction
- NMS
- Typical Configuration
- Self-help service provisioning
- Service provisioning through the SPG2800 web portal
- Service provisioning through the BSS
- Registration Processes
- RCS9880 Data Configuration Overview
- Connecting the RCS9880 to I2000
- RCS9880 Interworking Data Configuration
- I2000 Maintenance and Operation
- RCS9880 Maintenance Tools
- Basic Troubleshooting Process
- RCS Information Collection
- RCS Problem Identification Procedure
- Typical Cases
- RCS Emergency Handling

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

3 working days

### Class Size

Min 6, max 12

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## 1.2.22 OZJ05 VoWiFi Solution (IMS) Technical Topic



### Objectives

On completion of this course, 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.

### 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

### Content

- VoWiFi Solution overview
- VoWiFi signaling processing flow
- VoWiFi Key Technologies
- VoWiFi network deployment
- VoWiFi Solution data configuration procedure in IMS network
- VoWiFi Solution data configuration in IMS network

### Training Methods

Lecture

### Duration

1 working day

### Class Size

Min 6, max 12

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## 1.2.23 OZJ04 CaaS Solution Operation and Maintenance



### Objectives

On completion of this course, 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.

### 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

Mediatrix3600

### Content

- CaaS Development Trend and Background
- Huawei CaaS Solution
- Key Technologies Used in Huawei CaaS Solution
- OMP9360 Product Overview
- OMP9360 Portal Introduction
- OMP9360 Server Introduction
- Typical Deployment
- Trope Product Overview
- Deployment of Trope application
- O&M Network Management System
- Trope Typical Deployment
- Trope Hardware Data Configuration
- Trope Software Data Configuration
- Trope System Commissioning
- CaaS Data Configuration

### Training Methods

Lecture, Hands-on exercise

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.24 OZJ03 UC Operation and Maintenance



### Objectives

On completion of this course, 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.

### 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

### Content

- UC Development Trend and Background
- Huawei UC Solution
- Key Technologies Used in Huawei UC Solution
- Voice Service Processing Flow
- PGM Service Processing Flow
- Conference Service Processing Flow
- Introduction to the UPortal2800
- Deployment of UPortal2800 Processes
- Key Features of the UPortal2800
- Data Configuration Objectives and Procedure
- Configuring Core Layer and Access Layer Data
- Configuring Business Support Layer Data
- Configuring Security Data
- Configuring Service Data
- UC Service Provisioning
- Basic Operations on the SPG2800
- Examples of UC Service Provisioning on the SPG2800

### Training Methods

Lecture, Hands-on exercise

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.25 OZJ02 VoLTE Solution (IMS) Advanced Operation and Maintenance



### Objectives

On completion of this course, 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

### 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

### Content

- VoLTE solution network structure, network element, interfaces
- VoLTE network evolution architecture

- Principles and networking of VoLTE basic calls
- Typical VoLTE processes of EPC attachment, IMS register, basic call, UE access domain selection
- Principle of anchor processing flow
- Deployment of VoLTE basic calls
- VoLTE basic calls configuration flow
- eSRVCC principles and networking
- Typical eSRVCC processes
- eSRVCC deployment
- Network architecture for service provisioning
- Service provisioning flow, including user model
- Convergent HSS, ATS, ENS, UPCC service provisioning
- iFC data configuration
- Related concepts of QoS
- VoLTE E2E QoS solution introduction
- VoLTE E2E QoS Data Configuration
- VoLTE short message interworking solution
- VoLTE short message process flow and principle
- VoLTE basic practice guide, including: fundamental configuration, call configuration, eSRVCC and service provisioning
- VoLTE Registration Failure Troubleshooting
- VoLTE Basic Call Failure Troubleshooting
- VoLTE eSRVCC Failure Troubleshooting
- VoLTE Provisioning/Announcement Failure Troubleshooting

### Training Methods

Lecture, Hands-on exercise

### Duration

8 working days

### Class Size

Min 6, max 12



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## 1.2.26 OZB00 IMS Signaling Analysis



### Objectives

On completion of this course, 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

### 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

### Content

- IMS registration principle
- Detailed analysis of registration, de-registration, implicit registration flow with the headers in SIP message
- IMS typical fault analysis
- Session flow overview
- SIP header related to session route analysis
- B2BUA principle and AS session processing
- IMS whole signaling analysis

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.27 OZB01 IMS Number Analysis



### Objectives

On completion of this course, 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

### 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

### Content

- Detailed analysis of the transformation of request-URI and other SIP headers related to calling/called party identities in IMS End-to-End session flow
- CSC3300/ATS9900 number analysis scenario and procedure
- CSC3300/ATS9900 number analysis data configuration

- Basic concepts of number analysis of UGC3200(MGCF)
- UGC3200(MGCF) number analysis scenario and procedure
- UGC3200(MGCF) number analysis data configuration
- Caller and called number change function in CSC3300, including:
  - number normalization
  - number conversion
- Number change function in ATS9900, including:
  - basic concepts of number change
  - special called number change
  - special prefix processing data
  - failure processing data
- Related concepts of Call Barring(Call Barring group/black and white list/regulation Call Barring service)
- IMS Call Barring function, including: caller and callee sides processing
- IMS Call Barring data configuration

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

4 working days

### Class Size

Min 6, max 12



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## 1.2.28 OZB02 IMS Network Key Technology



### Objectives

On completion of this course, 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

### 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

### Content

- IMS geography redundancy solution

(architecture, signaling flow and data configuration), including redundancy solution of CSC3300,HSS9860,ATS9900,SPG2800 and UGC3200, etc

- Business trunk solution introduction, including:
  - TDM-PBX access
  - IP-PBX access
  - Virtual PBX
- IMS Emergency Call principle
- Emergency Call data configuration
- Emergency Call troubleshooting
- IMS access network introduction, including:
  - xDSL/xPON/LAN access
  - AGCF access
  - Cable access
- IMS Service Profile Introduction
- iFC principle
- iFC data configuration and example

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

4 working days

### Class Size

Min 6, max 12

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## 1.2.29 OZB06 IMS Maintenance in-depth and Advanced Troubleshooting



### Objectives

On completion of this course, 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

### 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

### Content

- CGP system administration
- CGP High Availability (HA)
- Obtain and query Log file
- Software patch principle
- IMS software patch operation
- IMS database backup and restoration solution introduction
- IMS database backup and restoration operation guide
- Performance Management Overview
- Measurement Task Management
- Querying Measurement results
- Exporting Measurement results
- Troubleshooting method and procedure
- IMS hardware and NE troubleshooting
- Integrated troubleshooting case analysis
- IMS troubleshooting practice in-lab

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

3 working days

### Class Size

Min 6, max 12

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## 1.2.30 OZB07 SE2600 Advanced Operation and Maintenance



### Objectives

On completion of this course, 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.

### Target Audience

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

### Prerequisites

- 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
- Successful completion of the SE2600 Operation and Maintenance Training

### Content

- Security and reliability features, including IP Layer Attack Defense and Signaling Attack Defense, IPSec Tunnel Interworking, Dual Homing, Dual-System Hot Backup
- QoS control features, including QoS and CAC
- Protocol process features, including SIP Header Manipulation Rule, SIP protocol interworking, SIP Signaling Compression, SIP over TCP, SIP over TLS
- Other features, including Local PDF, SIP PBX
- Troubleshooting process flow
- Service troubleshooting cases
- System troubleshooting cases

### Training Methods

Lecture, Hands-on exercise, E-lab

### Duration

2 working days

### Class Size

Min 6, max 12

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## 1.2.31 OZD03 IMS IP Technology Training



### Objectives

On completion of this course, 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

### Target Audience

Core network commissioning engineers, Operation and maintenance engineers

### Prerequisites

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

### Content

- The fundamental IP knowledge and the application in IMS
- The structure of IP bear network and the main protocols used
- VLAN principle and the application in IMS
- The related data configuration in IMS
- The internal IP networking in IMS
- The hardware of DATACOM equipments used for IMS
- The operation and maintenance of DATACOM equipments used in IMS
- The principle and data configuration of reliability solutions, such as SCTP multihoming, BFD and VRRP
- The QoS requirement to IP bear Network
- The QoS technical methods in IMS
- The IP troubleshooting methods, steps and typical cases in IMS

### Training Methods

Lecture, Hands-on exercise

### Duration

4 working days

### Class Size

Min 6, max 12

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## 1.2.32 OZP01 IMS Network Planning and Design



### Objectives

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

- 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)

### Target Audience

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

### Content

- Information collection
- IMS network designing overview
- IMS network topology structure design
- Interface and protocol design
- IMS networking structure design cases

- IP interconnection design and route reliability design
- VPN requirement
- Interface requirement
- QoS design
- IP interconnection design cases
- Naming and ID design
- Registration Flow
- Interconnection design with PSTN/PLMN
- IMS access network topology structure
- Subscriber access types
- IMS resource requirement
- Bandwidth calculation overview
- IMS bandwidth calculation principle
- IMS bandwidth calculation template introduction
- IMS service provisioning interconnection design
- Charging interconnection design
- IMS network management interconnection design

### Training Methods

Lecture

### Duration

3.5 working days

### Class Size

Min 6, max 12

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### 1.2.33 OZA09 Core Network Technology Evolution



#### Objectives

On completion of this course, 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

#### Target Audience

Technical support personnel, technical specialist

#### Prerequisites

- A general understanding of telecommunication and data communication

#### Content

- Communication network overview
- PSTN fixed telephone network evolution
- PLMN mobile phone network evolution
- PS mobile data network evolution
- IMS fixed and mobile convergence networks
- The overall evolution of the core network

#### Training Methods

Lecture

#### Duration

1 working day

#### Class Size

Min 6, max 12

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## 1.2.34 OZA99 IMS System Principle (WBT)



### Objectives

On completion of this course, 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

### 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

### Content

- History of IMS
- IMS network architecture and function of the network elements
- IMS user access Solution

- IMS network features and network evolution
- HUAWAI IMS solution introduction
- SIP Overview
- Function and workflow of SIP protocol
- Message structure and Header fields in IMS
- SIP Application in IMS
- Diameter Protocol Overview and protocol structure
- The procedure of the Diameter application
- Basic concepts of Offline Charging
- The offline charging architecture and procedure
- SIP message analysis related to Offline Charging
- CDR format
- Basic concepts and functions of the SBC
- SBC Usage Scenarios
- A-SBC Work Process
- I-SBC Work Process
- Functions and Principles of the DNS/ENUM
- The procedures for DNS and ENUM query
- Application of the DNS/ENUM in IMS network

### Training Methods

Multi-media

### Duration

5 hours

### Class Size

No limit

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## 1.2.35 OZC99 IMS Routine Maintenance (WBT)



### Objectives

On completion of this course, 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

### 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

### Content

- Operations on the LMT
- Installing LMT software
- Logging in to the LMT
- Batch Command Operation
- Exporting NEs Configuration File
- Exporting the Log File
- Hardware Maintenance On the LMT
- KVM over IP
- SOL Operations
- Maintain the software
- Version Management
- License Management
- Patch Management
- Maintenance for the MEs
- Alarm Management
- Log Management
- Monitoring Management
- Signaling Trace
- Performance Management
- The basic concepts of IMS subscription
- SPG introduction
- Template management
- Subscriber provisioning and typical configuration case
- Query subscriber status
- The main services provided by ATS9900
- The ATS service provisioning
- The ATS service operation case, including:
  - Call Forwarding
  - Calling Line Identification
  - Multi-Ringing service
  - Do Not Disturb
- CSC3300 and HSS9860 routine maintenance, including:
  - Site Maintenance
  - IP Connection Maintenance
- CSC3300 Access Network Maintenance
- CSC3300 Charging Maintenance
- Subscriber Data Management
- ENS configuration provision interface introduction
- ENS basic data configuration step
- ENS basic data planning
- ENS service data configuration and provisioning case
- Console Introduction
- Log in/out operation
- CCF customize the system setting
- CCF operation, including CDR management, performance management, Log management,



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Auxiliary Upgrade

- Debug Console Introduction
- Establish configuration environment
- The Main maintenance functions Of SE2600
- Basic Maintenance Commands

Training Methods

Multi-media

Duration

4 hours

Class Size

No limit

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## 1.2.36 OZZ99 VoLTE Solution Introduction (WBT)



### Objectives

On completion of this course, 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

### 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

### Content

- Related Concepts of VoLTE
- Solution Architecture and Network Evolution
- Basic flows of VoLTE (registration and call)
- eSRVCC Handover Procedure

### Training Methods

Multi-media

### Duration

2 hours

### Class Size

No limit

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## 1.2.37 OZZ99 VoLTE Solution Introduction (WBT)



### Objectives

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

- Describe related concepts of VoLTE
- Describe the network structure of VoLTE solution
- Describe the basic flows of VoLTE (registration, call, QoS)
- Describe the eSRVCC basic principles

### 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

### Content

- Related concepts of VoLTE
- Network structure of VoLTE solution
- Basic flows of VoLTE (registration, call, QoS)
- eSRVCC basic principles

### Training Methods

Multi-media

### Duration

2 hours

### Class Size

No limit

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## 1.2.38 OZZ09 VoLTE Introduction (M-Learning)



### Objectives

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

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

### 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

### Content

- Voice solution in LTE era
- CSFB solution
- VoLTE basic registration signaling flow
- Terminating access domain selection (T-ADS)
- VoLTE basic call signaling flow

- SRVCC and eSRVCC technology
- eSRVCC network structure and interfaces
- ID Number involved with ATCF
- eSRVCC handover flow
- Anchor process flow
- ICS access
- IP short-message gateway (IP-SM-GW)
- E2E QoS solution
- VoLTE Subscribers Data Model and Service Provisioning
- Typical network deployment of Huawei VoLTE solution

### Training Methods

Multi-media

### Duration

1.5 hours

### Class Size

No limit

