



IP Broadband Network Management 2018 Training Programs

Catalog of Course Descriptions







Catalog of Course Descriptions



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Introduction

Ericsson has developed a comprehensive Training Programs service to satisfy the competence needs of our customers, from exploring new business opportunities to expertise required for operating a network. The Training Programs service is delineated into packages that have been developed to offer clearly defined, yet flexible training to target system and technology areas. Each package is divided into flows, to target specific functional areas within your organization for optimal benefits.

Service delivery is supported using various delivery methods including:

| Icon | Delivery Method |
|--|-------------------------------|
|  | Instructor Led Training (ILT) |
|  | eLearning (WBL) |

Ericsson AB

Global Services

SE-164 80 Stockholm

Telephone: +46 10 719 0000



Ericsson IP Transport NMS R12 for ASON (WSON) Solution Operations



LZU1088974 R1A

Description

The efficient use of the ASON (WSON) feature in the DWDM networks is vital to maintain reliable services at minimum cost. This course is designed for people who have to perform operations on the ASON (WSON) Network via the IPT NMS - Network Manager. The course contents will provide high level information on the specific subject.

Learning objectives

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

- 1 Describe the architecture of the ASON (WSON) Networks.
Describe the main ASON (WSON) technology features.
Describe the difference between a traditional DWDM network and an ASON (WSON).
Illustrate the most important benefits it is possible to achieve using ASON (WSON) technology.
Discuss the new ASON (WSON) protections mechanisms.
- 2 Describe the ASON – SNM.
Describe the main features of the ASON-SNM Advantage Module.
Analyze the main features of the Graphical User Interface (GUI).
- 3 Describe the WSON Configuration Wizard.
Describe the main features of the WSON Configuration Wizard tool.
Configure a Control Channel.
Configure a Link Cluster.
Configure a Link Component.
Build an association between Link Clusters, Link Components and Control Channels.
- 4 Illustrate six practical exercises.
Setup a WSON from scratch.
Create and analyze a circuit Transponder Sharing protected;
Create and analyze a circuit Safe OSNCP protected;
Add a Link Component to an existing Link Cluster.
Create a new Link Cluster.
Add new tributary UNI interfaces.
- 5 Describe the different NE restoring scenarios.





Perform the specific checks after NE restore.
Perform the specific checks before setting On Line the restored NE.

Target audience

The target audience for this course is:

Service Planning Engineer, Service Design Engineer, System Engineers, System Technicians.

Prerequisites

Successful completion of the following courses:

DWDM theory, MHL3000 Operations and Maintenance course, ServiceOn Network Manager R11 for DWDM Network Operations, ON Planner R1 Operations.

Duration and class size

The length of the course is 5 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in a classroom environment.



Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|------------|--|-------------------------------|
| 1 | Describe the architecture of the ASON (WSON) Networks | 6 hours |
| 2 | Describe the architecture of the ASON (WSON) Network Discuss the new ASON (WSON) protections mechanisms. Describe the ASON – SNM | 3 hours 3 hours |
| 3 | Describe the WSON Configuration Wizard | 6 hours |
| 4 | Illustrate six practical exercises | 6 hours |
| 5 | Illustrate six practical exercises - Create a new Link Cluster Describe the different NE restoring scenarios | 2 hours 4 hours |

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Ericsson IP Transport NMS R14 for DWDM Network Operations



LZU 108 9693 R1A

Description

The efficient use of a network manager in the transport network is vital to maintain reliable transport services at a minimum cost. With the help of this training the attendees will understand how to efficiently manage their DWDM network using the Network Management System.

The course applies to the management of the Ericsson equipment for with WDM applications. Specifically, the management of the MHL 3000 and of the SPO 1400 are explained.

Learning objectives

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

- 1 Manage Traffic Connections
 - 1.1 Configure an Optical Link
 - 1.2 Configure an Optical Path
 - 1.3 Configure an High order circuit passing through an optical channel (och)
 - 1.4 Configure network resources using Trail Wizard
 - 1.5 Manage the Generic Data Client
- 2 Manage the OTN layers
 - 2.1 Configure ODU-x path
- 3 Manage the traffic protections
 - 3.1 Add, modify, remove path protection (OSNCP)
 - 3.2 Manage ODU-x protections
 - 3.3 Re-arrange the traffic route
- 4 Management the network alarms
 - 4.1 Monitor the alarms using the RTAM
 - 4.2 Display the alarm history log file and counters
- 5 Traffic monitoring and network maintenance
 - 5.1 Use the performance monitoring facilities
 - 5.2 Use the trail trace monitoring facilities





Target audience

The target audience for this course is:
System Engineers, System Technicians.

Prerequisites

Successful completion of the following courses:

- ServiceOn Element Manager R14 for Optical and Microwave Network Operation
- DWDM Theory and G.709 Frame

According to the controlled equipment the following courses may be prerequisite:

- MHL 3000 R6 Operation and Maintenance - LZU1088351
- SPO 1400 R14 OTN Operations

Duration and class size

The length of the course is 2 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in a classroom environment. This course can be conducted at the Customer premises.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|---|------------------------|
| 1 | Configure the DWDM network representation in the Network Manager System | 3 hours |
| | Manage the OTN layers | 3 hours |
| 2 | Manage the traffic protection in the DWDM network using NMS | 2 hours |
| | Alarms management | 1 hours |
| | Understand the performance monitoring facilities on Optical Paths | 3 hours |

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Ericsson IP Transport NMS R14 for IP Service Operations



LZU 108 9695 R1A

Description

With the usage of the IPT NMS - Packet you will be able to create scalable and secure VPN solutions over an existing IP network. At the completion of this course you will know how to adopt IPT NMS Packet to configure L3VPN and L2VPN services over L3VPN backbone core network (including provisioning of the attachment circuit and pseudo-wire connections), as well as site-to-site IPsec VPN services to route authenticated encrypted IP traffic between gateways crossing an unsecured routing cloud.

The course is applied to SmartEdge routers.

Learning objectives

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

- 1 IP Transport NMS overview
 - 1.1 Describe the IP Transport NMS purpose for IP networks
 - 1.2 Understand system functions
 - 1.3 Provision services
 - 1.4 Describe additional configuration via CLI
 - 1.5 Handle IP Monitor and Fault management
- 2 Manage the L3VPN services
 - 2.1 Describe the L3VPN services and their applications
 - 2.2 Create the service template
 - 2.3 Create and deploy the service
 - 2.4 Describe additional configuration via CLI
 - 2.5 Configure and run ping monitors for the service
- 3 Manage the L2VPN services
 - 3.1 Describe the L2VPN services and their applications
 - 3.2 Create the templates
 - 3.3 Create and deploy a service
 - 3.4 Handle diagnostics commands
- 4 Manage the IPsec services
 - 4.1 Describe the IPsec services and their applications
 - 4.2 Define the prerequisites and configuration requirements for the involved devices
 - 4.3 Create IKE proposals and policies
 - 4.4 Create IPsec proposals and policies





- 4.5 Create the service template
- 4.6 Create and activate the service

Target audience

The target audience for this course is:

System Technician, Service Technician, System Engineer, Service Engineer

Prerequisites

Successful completion of the following courses:

Good knowledge of IP technology, SmartEdge devices configuration and NetOp EM.

Duration and class size

The length of the course is 2 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in a classroom environment. This course can be conducted at the Customer premises.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|-------------------------------|------------------------|
| 1 | IP Transport NMS Overview | 3 |
| | Manage the L3VPN service | 3 |
| 2 | Manage the L2VPN service | 3 |
| | Manage the IPSec VPN services | 3 |

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Network Protocol Stacks Overview



LZU 108 8734 R1A

Description

This course will cover the fundamentals of Network Protocol Stack.

Learning objectives

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

- 1 Understand the major trends related to network protocols and associated protocol stacks.
- 2 Answer “what are protocols and protocol stacks in telecommunications network?”
- 3 Identify what are the different types of protocol stack.
- 4 Understand the protocol development process and identify different standard bodies.

Target audience

The target audience for this course is:

Fundamentals

Prerequisites

Successful completion of the following courses:

There are no prerequisites for this course

Duration and class size

The length of the course is 1 hour.

Learning situation

This is a self paced web based course



ERICSSON



Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|------------|-------------------------------------|-------------------------------|
| | Introduction to the course | |
| | The Protocol stack | |
| | Reference model and protocol stacks | |
| | Standardization | |
| | Summary | |



TMN, FCAPS and SNMP Overview



LZU 108 8733 R1A

Description

This learning module will give an introduction to the Simple Network Management Protocol and the reasons why it has become so successful over the years. It will also give you an introduction into the TMN and FCAPS models. It will focus on the main functionalities and purposes of TMN and FCAPS.

Learning objectives

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

- 1 Understand what SNMP is
- 2 Understand SNMP architecture
- 3 Describe areas of deployment
- 4 Understand benefits of utilizing SNMP
- 5 Understand the purpose of TMN and FCAPS
- 6 Able to understand the trends and drivers that are applied to TMN and FCAPS
- 7 Understand the key benefits of TMN and FCAPS
- 8 Understand the strengths and weaknesses of TMN
- 9 Understand how TMN and FCAPS is deployed

Target audience

The target audience for this course is:

Fundamentals

Prerequisites

Successful completion of the following courses:

There are no prerequisites for this course



**Duration and class size**

The length of the course is 0.75 hours.

Learning situation

This is a self paced web based course

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|------------|---|-------------------------------|
| 1 | What is SNMP The SNMP Architecture Network Management System Managed Devices SNMP Agents SNMP Message Types Areas of Deployment Key benefits of using SNMP What is TMN Logical Layers Functional Areas TMN and FCAPS Trends and Drivers Key benefits of using TMN Functionality Deployment scenario Summary Knowledge Assessment | |



Ericsson IP Transport NMS R16 for TDM Network Operations



LZU1082303 R1A

Description

The efficient use of a network manager in the transport network is vital to maintain reliable transport services at a minimum cost. With the help of this training, attendees will understand the features of the Ericsson IP Transport Network Management System for Optical Networks and Microwave Networks; they will also learn the guidelines to set-up in a quick and efficient way the representation and supervision of the traffic network built with Ericsson Network Elements.

With the help of the training documentation provided in this course and the guidance of the instructor, attendees will learn the most efficient ways to configure and manage both traffic and protections, hence saving time and money.

NOTE: The following arguments: MS-SPRing Management and Ethernet over SDH/PDH Management are part of the training course only if required in advance.

Learning objectives

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

- 1 Outline the purpose of a network management system.
 - 1.1 Define the role of the IPT NMS Circuit within the management system.
 - 1.2 Identify the services provided by the manager system.
 - 1.3 Specify hardware and software platforms.
- 2 Access the network manager interface.
 - 2.1 Describe how to login and execute the network manager software set-up operations.
 - 2.2 Identify the Graphical User Interface areas and the main icons.
- 3 Configure the network representation in the network manager system.
 - 3.1 Describe the network manager resources involved in the network representation.
 - 3.2 Set-up the network representation.
 - 3.3 Use of Radio link auto-discovery for microwave links
 - 3.4 Maintain network manager aligned with underlying element manager systems.
 - 3.5 Monitor the state of network elements in the underlying network infrastructure.
 - 3.6 Realign the network manager database with the network elements in the underlying network infrastructure.
- 4 Manage the traffic connections in the network manager system.



- 4.1 Describe the network manager resources involved in the traffic handling.
- 4.2 Use the “find circuit/path” tool.
- 4.3 Configure, modify and remove a traffic circuit (HO/LO) / VC4 Path
- 4.4 Configure a LO circuit crossing a VC-4 path.
- 5 Operate the traffic protection in the network manager system.
 - 5.1 Add, modify and remove the path protection (SNCP)
 - 5.2 Re-arrange the traffic route.
 - 5.3 Configure the multiplex section protection (MS-SPRing).
- 6 Detect the network alarms.
 - 6.1 Monitor the alarms using the RTAM.
 - 6.2 Display the alarm history log file and counters.
- 7 Perform the network maintenance and traffic monitoring.
 - 7.1 Describe the traffic re-routing procedures
 - 7.2 Use the tool for insertion of a Sub-network into a link
 - 7.3 Use the performance monitoring facilities.
 - 7.4 Use the trail trace monitoring facilities.
- 8 Handle Ethernet traffic over SDH/PDH.
 - 8.1 Describe the role of IPT NMS Circuit
 - 8.2 Describe the workflow to configure the mapping of Ethernet traffic in TDM transport network
 - 8.3 Highlight the management of traffic with SPO1400 equipment

Target audience

System Engineer, System Technician

Prerequisites

Successful completion of the following courses:

Successful completion of the following courses:

Participants should be familiar with PDH/SDH technologies, radio principles and the relevant managed Network Elements, or alternatively they should have an equivalent knowledge and experience.

Duration and class size

The length of the course is 3 days and the maximum number of participants is 8.



Learning situation

This course is based on theoretical and practical instructor-led lessons given in a classroom environment. This course can be conducted at Customer premises.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|---|------------------------|
| 1 | • Outline the purpose of a network management system | 1 hour |
| | • Access the network manager interface | 1 hour |
| | • Configure the network representation in the network manager system | 3 hours |
| | • Manage the traffic connections in the network manager system | 1 hour |
| 2 | • Manage the traffic connections in the network manager system (Contd) | 4 hours |
| | • Operate the traffic protections in the network manager system | 2 hours |
| 3 | • Operate the traffic protections in the network manager system (Contd) | 2 hours |
| | • Detect the network alarms | 1 hour |
| | • Perform the network maintenance and traffic monitoring | 1 hour |
| | • Handle Ethernet traffic over SDH/PDH | 2 hours |





Ericsson IP Transport NMS R16 Advanced Ethernet Management



LZU1082304 R2A

Description

The management of Ethernet links in the transport network is a specific task that easily could be time consuming if not efficiently performed.

With the aid of this training, participants will understand how to perform those operations with the Ericsson IP Transport NMS for MPLS-TP network. They will understand how to perform the fast and efficient configuration of a MPLS-TP network, creation of packet services and management of the Circuit Emulation Services, to handle the 2Mb/s flow over an ethernet network.

In addition examples of interworking among different domains (ERP, Bridged Tree, MPLS-TP) are described, as well as modification of existing services.

The course can be focused only in a subset of subjects, according to customer's needs.

NOTE: In case the full set of exercises needs to be explained during the training, the course duration should be enlarged.

Learning objectives

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

- 1 Describe the MPLS-MPLS-TP transport technology.
 - 1.1 Underline the basic features of MPLS
 - 1.2 Show the differences between MPLS and MPLS-TP
- 2 Manage MPLS-TP Tunnel Services.
 - 2.1 Describe the utilization of MPLS-TP Tunnel Service.
 - 2.2 Describe the requested template.
 - 2.3 Configure the MPLS-TP Tunnel.
 - 2.4 Route the MPLS-TP Tunnel.
 - 2.5 Deploy the MPLS-TP Tunnel.
 - 2.6 Manage MPLS-TP Tunnel protections.
 - 2.7 Execute MPLS-TP Tunnel discovery.
- 3 Handle E-LAN services over MPLS-TP.
 - 3.1 Describe the Virtual Private Network services (VPN).
 - 3.2 Define the L2VPN domain.
 - 3.3 Specify the usage of the templates.
 - 3.4 Create the E-LAN service.





- 3.5 Route the service over a MPLS-TP Tunnel.
- 3.6 Deploy the service in the NEs.
- 3.7 Configure E-Tree service over H-VPLS network.
- 4 Handle E-LINE services over MPLS-TP.
 - 4.1 Describe the E-LINE service concept.
 - 4.2 Specify the usage of the templates.
 - 4.3 Handle the pseudo wire protection
 - 4.4 Create the E-LINE service.
 - 4.5 Route the service over a MPLS-TP Tunnel.
 - 4.6 Deploy the service in the NEs.
- 5 Configure Ethernet services over different component domains.
 - 5.1 Describe the role of component domain in IP Transport NMS.
 - 5.2 Route the Ethernet services over different domains.
 - 5.3 Describe examples of services creation/routing involving multiple component domains.
- 6 Handle Ethernet services.
 - 6.1 Verify the service configuration.
 - 6.2 Illustrate the guidelines to modify a deployed service.
 - 6.3 Modify the LSP of an MPLS-TP tunnel used as transport for a service.
 - 6.4 Define the procedure to insert and remove a node into a link with MPLS-TP tunnel configured.
 - 6.5 Handle the MPLS-TP ring services.
- 7 Describe OAM functionalities.
 - 7.1 Illustrate the main principles of OAM functionalities.
 - 7.2 Use IP Transport NMS to enable OAM functionalities in Ethernet services.
- 8 Configure the Circuit Emulation Services (CES).
 - 8.1 Describe the basic concepts of Circuit Emulation Services over Ethernet (CESoE).
 - 8.2 Execute preliminary steps to enable CES configuration.
 - 8.3 Define the characteristics of CES templates.
 - 8.4 Configure CES using all available encapsulation modes (Ethernet/IP/MPLS).

Target audience

The target audience for this course is:

Service Deployment Engineer, Service Technician, System Engineer, Service Engineer.

Prerequisites

Successful completion of the following courses:

- SPO 1410-1460 R16 Ethernet Operation
- Ericsson IP Transport NMS R16 for Ethernet Service Operations, LZU1082302



Good knowledge about MPLS-TP and CES implementation in the SPO1400 R16 is mandatory, as well as the handling of E-LAN services using IPT NMS Packet.

Duration and class size

The length of the course is 2 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in both classroom and in a technical environment using equipment and tools, which are accessed remotely. This course can be conducted at the Customer premises.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|--|------------------------|
| 1 | Describe the MPLS-MPLS-TP transport technology | 0.5 |
| | Manage MPLS-TP Tunnel Services | 2.5 |
| | Handle E-LAN services over MPLS-TP | 1.5 |
| | Handle E-LINE services over MPLS-TP | 1.5 |
| 2 | Configure Ethernet services over different component domains | 2.0 |
| | Handle Ethernet services | 1.5 |
| | Describe OAM functionalities | 1.0 |
| | Configure the Circuit Emulation Services (CES) | 1.5 |



Ericsson IP Transport NMS R16 for Ethernet Service Operations



LZU1082302 R2A

Description

The efficient management of the Ethernet infrastructure over the transport network is vital to configure and maintain reliable transport services at a minimum cost. With the help of this training, the attendees will understand the features of the Ericsson IP Transport NMS for Ethernet Services applications and they will learn the guidelines for managing in a quick and efficient way the data client circuits built on the transport network. The IPT NMS provides different kind of services according to the managed equipment; for this reason at the time of requesting this course, it is necessary to specify which equipment to training is to be addressed: the Academy Center will provide a test plant facilities with the required equipment.

Learning objectives

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

- 1 Outline the purpose of a network management system.
 - 1.1 Define the role of the IPT NMS Packet within the management system.
 - 1.2 Identify the services provided by the packet services manager system.
 - 1.3 Specify hardware and software platforms to make the application running.
- 2 Access the IPT NMS Packet interface.
 - 2.1 Execute the IPT NMS Packet software set-up operations.
 - 2.2 Identify the Graphical User Interface areas and main used icons.
 - 2.3 Identify the main resources managed for LINE/LAN applications.
- 3 Configure the transport infrastructure.
 - 3.1 Describe the resources involved in the transport infrastructure representation.
 - 3.2 Set-up the transport infrastructure.
 - 3.3 Maintain the IPT NMS aligned with the EM systems.
 - 3.4 Monitor the state of the NEs involved in the traffic representation.
 - 3.5 Realign the IPT NMS Packet database with the NEs involved in the network representation.
- 4 Manage the E-Line services.
 - 4.1 Describe the characteristics of E-Line services.
 - 4.2 Identify the main resources involved in an E-Line service.
 - 4.3 Configure the E-Line service.





- 5 Manage the E-LAN services.
 - 5.1 Describe the characteristics of E-LAN services.
 - 5.2 Identify the main resources involved in an E-LAN service.
 - 5.3 Configure the E-LAN service.
 - 5.4 Display and manage the E-LAN services.
- 6 Manage the alarms.
 - 6.1 Use the RTM facilities to detect alarms.
 - 6.2 Get alarms by service.
 - 6.3 Handle alarm history.
 - 6.4 Define alarm settings.
- 7 Handle Ethernet services.
 - 7.1 Manage existing Ethernet services.
 - 7.2 Auto-discover Ethernet services configured in the network.
 - 7.3 Use predefined files to configure the network infrastructure
- 8 Manage the IPT NMS Packet OAM functionalities.
 - 8.1 Illustrate the main principles of OAM functionalities.
 - 8.2 Discuss the OAM implementation in IPT NMS Packet.
 - 8.3 Configure the E-Line and E-LAN OAM Services

Target audience

The target audience for this course is:

Service Deployment Engineer, Service Technician, System Engineer, Service Engineer.

Prerequisites

Successful completion of the following courses:

- SPO 1410-1460 R16 Basic Commissioning
- SPO 1410-1460 R16 Ethernet Operation
- MINI-LINK TN O&M
- MINI-LINK TN Advanced Ethernet
- MINI-LINK SP O&M

The prerequisites for this course vary according to the equipment the participant is interested to manage via the IPT NMS for Ethernet Services. Participants should have followed one of the above courses (or have equivalent knowledge), according to the equipment they need to manage.

Duration and class size

The length of the course is 3 days and the maximum number of participants is 8.



Learning situation

This course is based on theoretical and practical instructor-led lessons given in both classroom and in a technical environment using equipment and tools, which are accessed remotely.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|--|------------------------|
| 1 | Outline the purpose of a network management system | 1 |
| | Access the IPT NMS Packet interface | 1 |
| | Configure the transport infrastructure | 3 |
| | Manage the E-Line services | 1 |
| 2 | Manage the E-Line services | 2 |
| | Manage the E-LAN services | 3 |
| | Manage the alarms | 1 |
| 3 | Handle Ethernet services | 2 |
| | Manage IPT NMS Packet OAM functionalities | 2 |
| | Extra Exercises and hands-on | 2 |



ServiceOn Element Manager R16 for Optical and Microwave Network Operation



LZU1082305 R2A

Description

Lack of knowledge in the Element Management System can seriously slow down NOC operations and increase costs. With the help of this training the attendees will understand the features of the ServiceOn Element Manager and will learn the guidelines to configure and operate on the managed network. Furthermore the training will give your operators a training environment which includes realistic scenarios as well as an essential guidance to perform operation tasks in the most efficient way.

This training includes instructor-led lectures and practical sessions on both Microwave and Optical nodes and it is based on ServiceOn Element Manager R16A.

Learning objectives

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

- 1 Describe the purpose of the management system
 - 1.1 Identify the role of the element manager within the network management system structure
 - 1.2 Discuss about the main resources involved in the network management system
 - 1.3 Discriminate the communication parameters needed for the equipment-to-server and client-to-server connection
- 2 Access the element manager interface
 - 2.1 Access the SOEM GUI
 - 2.2 Identify the Graphical User Interface areas
 - 2.3 Describe the main commands
- 3 Configure the graphical environment with the controlled network elements
 - 3.1 Configure subnetworks
 - 3.2 Install network elements
 - 3.3 Identify communication parameters
- 4 Manage the alarms
 - 4.1 Monitor and manage the active alarms of the network elements
 - 4.2 Display events
 - 4.3 Use the history tools
- 5 Performance management
 - 5.1 Describe the performance handling





- 5.2 Manage the performance activities
- 5.3 Handle the performance reports
- 6 Handling software upgrade
 - 6.1 Load software to SOEM repository
 - 6.2 Download and activate software on NE
- 7 Retrieve data of the network elements
 - 7.1 Retrieve the network element details
 - 7.2 Retrieve equipment composition data
 - 7.3 Manage inventory data towards Optical and MINI-LINK equipment
- 8 Network element configuration
 - 8.1 Operate the NE backup and restore of database
 - 8.2 Describe HW upgrade
 - 8.3 Execute Bulk CLI
- 9 License management
 - 9.1 Report SoEM application licenses
 - 9.2 Describe and operate the NE license management

Target audience

The target audience for this course is:

Service Deployment Engineer, System Technician, Service Technician, System Engineer.

Prerequisites

Successful completion of the following courses:

Operations and Maintenance courses on the managed network elements or have an equivalent knowledge.

Duration and class size

The length of the course is 3 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in a classroom environment. This course can be conducted at the Customer premises.



Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|--|------------------------|
| 1 | Describe the purpose of the management system | 1 |
| | Access the element manager interface | 1 |
| | Configure the graphical environment with the controlled network elements | 4 |
| 2 | Manage the alarms | 2 |
| | Manage performance monitoring | 4 |
| 3 | Manage the NE data reports | 2 |
| | Understand the mechanism of NE maintenance features | 4 |



System Administration for Ericsson Service On EM / IP Transport NMS R16



LZU1082306 R2A

Description

Managing efficiently a business critical system is a vital task. This course provides system administrators with the necessary information for the user management, system and database management.

The course content is aligned to Ericsson IP & BB NMS R16A.

Learning objectives

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

- 1 Describe the structure of the IPT NMS / SO EM solutions
 - 1.1 Identify the hardware modules
 - 1.2 Identify the software dependencies
 - 1.3 Describe the single and multi-server deployments
 - 1.4 Discuss the high availability solutions
- 2 Recall Basic Linux
 - 2.1 Execute basic operations on SUSE Linux
 - 2.2 Identify the installation paths
 - 2.3 Define the main environment variables of the application
 - 2.4 List the software release
 - 2.5 Specify the main directories and files
- 3 Manage the user profiles
 - 3.1 Define a new user in the different systems
 - 3.2 Manage security profiles
- 4 Operate the system maintenance
 - 4.1 Name the main processes and their function
 - 4.2 Define system-level backup and restore operations
 - 4.3 Perform application-level backup and restore operations
- 5 Troubleshooting procedures and tools
 - 5.1 Perform main troubleshooting procedures
 - 5.2 Locate the log files





Target audience

The target audience for this course is:

System Administrator

Prerequisites

Successful completion of the following courses:

ServiceOn Element Manager R16 for Optical and Microwave Network Operation, LZU1082305

Ericsson IP Transport NMS R16 for TDM Network Operations, LZU1082303

Ericsson IP Transport NMS R16 for Ethernet Service Operations, LZU1082302

Experience on Linux operating system is also required.

Duration and class size

The length of the course is 3 days and the maximum number of participants is 8.

Learning situation

This course is based on theoretical and practical instructor-led lessons given in both classroom and in a technical environment using equipment and tools.

Time schedule

The time required always depends on the knowledge of the attending participants and the hours stated below can be used as estimate.

| Day | Topics in the course | Estimated Time (hours) |
|-----|---|------------------------|
| 1 | Describe the structure and configurations of the solution | 1 |
| | Basic Linux | 2 |
| | Administration parts of the different systems (Part 1) | 3 |
| 2 | Administration parts of the different systems (Part 2) | 6 |
| 3 | Administration parts of the different systems (Part 3) | 3 |
| | Troubleshooting procedures and tools | 3 |

