



Global Services

# **AXH25xx** 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)
	Seminar (SEM)
	Workshop (WS)
	Virtual Classroom Training (VCT)
	Web Based Learning (WBL)
	Short Article (SA)
	Streaming Video (SV)
	CD-ROM (CD)
	Structured Knowledge Transfer (SKT)
<b>Delivery Enablers</b>	
	Remote Training Lab (RTL)
	Web Portal (WP)
<b>Ericsson Education E-Learning</b>	
	EEOnline @ <a href="http://learning.ericsson.net/eeonline/">http://learning.ericsson.net/eeonline/</a>

## AXH2510 Operation and Maintenance



LZU 108 6689 R1A

### Description

This course is designed for people who have to configure, operate and maintain the AXH2510 equipment in the access network.

The course contents will provide the full information about the equipment composition and features. The basic procedures for operation and maintenance and for the configuration of the main services will be explained.

### Learning objectives

On completion of this course the participants will be able to

- 1 Describe the basics concepts of the involved technologies  
Explain the benefits and the characteristics of the xDSL access  
Describe the basics of the ATM network  
Describe the basics of the Ethernet network
- 2 Describe the AXH2510 equipment  
Outline the features of the New Generation Agnostic Access Node  
Explain the benefits of the Metro-Ethernet access
- 3 Illustrate the AXH2510 equipment composition  
Describe the characteristics of the subracks  
Discuss about the supported tributary units and the relevant features  
Discuss about the line interfaces and the relevant features
- 4 Start the AXH2510 Local Terminal interface  
Navigate the interface  
Demonstrate the main configuration steps  
Configure IP address for the equipment management
- 5 Configure the traffic interfaces  
Configure the xDSL Ports  
Provision and configure the ATM and Ethernet interfaces  
Configure a VLAN
- 6 Configure In-Band management  
Describe the meaning of the In-Band management  
Configure the VLAN and the IP Address
- 7 Configure the Video Multicast and Data service  
Define the different video service solutions



Define the parameters for Data services  
Configure the client interfaces for video/data service  
Configure the IGMP channels and the segregators  
Configure the VLANs for Video and Data

- 8 Perform the DHCP Relay Agent configuration  
Understand the importance of the DHCP Relay Agent feature  
Configure the relevant VLAN and IP Address  
Configure the DHCP servers
- 9 Configure the Voice Services  
Understand the connection parameters between AXH2510 and LE  
Configure the V5.2 connections
- 10 Configure the VoIP service  
Understand the parameters of the VoIP configuration  
Configure the client interfaces
- 11 Operate main maintenance procedures  
Perform the backup and restore of the equipment database  
Monitor performance collection  
Monitor alarms  
Operate basic troubleshooting procedures

### **Target audience**

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

### **Prerequisites**

The participants should be familiar with the SDH, xDSL, ATM, Ethernet, IP, V5.x and VoIP principles.

### **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
1	• Review of the basic technologies	2 hours
	• System overview and applications	2 hours
	• Equipment composition	2 hours
2	• Local Terminal interface overview and basic configurations	1 hour
	• Configuring the connection parameters	1 hour
	• Configuring the traffic interfaces and the VLANs	2 hours
	• Configuring the video service parameters	2 hours
3	• V5.2 "Voice" service configuration	2 hours
	• VoIP service configuration	2 hours
	• Maintenance procedures	2 hours

## AXH2530 Operation and Maintenance



LZU 108 6719 R1A

### Description

This course is designed for people who have to configure, operate and maintain the AXH2530 IP DSLAM equipment in the access network.

The course contents will provide the full information about the equipment composition and features. The basic procedures for operation and maintenance and for the configuration of the main services will be explained.

### Learning objectives

On completion of this course the participants will be able to

- 1 Describe the basics concepts of the involved technologies  
Explain the benefits and the characteristics of the xDSL access  
Describe the basics of the Ethernet network
- 2 Describe the AXH2530 equipment  
Outline the features of the IP DSLAM  
Explain the benefits of the Ethernet access
- 3 Illustrate the AXH2530 equipment composition  
Describe the characteristics of the subracks  
Discuss about the supported tributary units and the relevant features  
Discuss about the line interfaces and the relevant features
- 4 Start the AXH2530 Local Terminal interface  
Navigate the interface  
Demonstrate the main configuration steps  
Configure IP address for the equipment management
- 5 Configure the traffic interfaces  
Configure the xDSL Ports  
Provision and configure the Ethernet interfaces  
Configure a VLAN
- 6 Configure In-Band management  
Describe the meaning of the In-Band management  
Configure the VLAN and the IP Address
- 7 Configure the Video Multicast and Data service  
Define the different video service solutions  
Define the parameters for Data services  
Configure the client interfaces for video/data service



Configure the VLANs for Video and Data applications

- 8 Perform the DHCP Relay Agent configuration  
Understand the importance of the DHCP Relay Agent feature  
Configure the relevant VLAN and IP Address  
Configure the DHCP servers
- 9 Configure the VoIP service  
Understand the parameters of the VoIP configuration  
Configure the client interfaces
- 10 Operate main maintenance procedures  
Perform the backup and restore of the equipment database  
Monitor performance collection  
Monitor alarms  
Operate basic troubleshooting procedures

### **Target audience**

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

### **Prerequisites**

The participants should be familiar with the xDSL, Ethernet and IP.

### **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
1	• Review of the basic technologies	1 hour
	• System overview and applications	3 hours
	• Equipment composition	2 hours
2	• Description of the services	2 hours
	• Local Terminal interface overview and basic configurations	2 hours
	• Configuring the connection parameters	2 hours
3	• Configuring the traffic interfaces and the VLANs	1 hour
	• Configuring the video service parameters	2 hours
	• VoIP service configuration	2 hours
	• Maintenance procedures	1 hour

## ServiceOn Access Operations AXH



LZU 108 6695 R1A

### Description

Is ServiceOn Access your network management system for the Access Hub AXH? Do you have these network elements in your sphere of responsibility, but you are not able to operate or configure them reliably within the network? Each network element has specific procedures and special features and functions.

With the help of the training documentation provided in this course and the guidance of the instructors, the attendees will learn the most efficient ways of system operation, maintenance, monitoring and configuration, hence saving time and money.

### Learning objectives

On completion of this course, the participants will be able to operate, maintain, monitor and configure the Access Hub AXH using ServiceOn Access. Moreover, the delegates will get acquainted with alarm signalling of network elements and thus control them to operate reliably within the network.

1. Introduction to the Access Hub AXH system
2. Explication of basic functions
3. Functionality of the ServiceOn Access Network Management System in conjunction with AXH network elements
4. Network element configuration, operation and monitoring processes

### Target audience

The target audience for this course is: System Engineer.

Personnel responsible for network element operation, maintenance, monitoring and configuration.

### Prerequisites

The participants should be familiar with digital transmission technology and must have already completed the ServiceOn Access Basic Course LZU1086690. Basic knowledge of the ATM, xDSL and V5 technology would be advantageous.

### Duration and class size

The length of the course is 4 days and the maximum number of participants is 8.



## Learning situation

This course utilizes Instructor Led Training.

It includes instructor-led lessons using power point presentations, hardware and software demonstrations and practical exercises on the hardware and network management software in a classroom with complete AXH equipment setup.

## Time schedule

Day	Topics in the course
1	<ul style="list-style-type: none"><li>• Fundamentals and terms (General ATM basics; General xDSL basics)</li><li>• Configuring network elements (Connecting network elements via a device driver; Equipping network elements with modules; Basic configuration)</li></ul>
2	<ul style="list-style-type: none"><li>• Establishing ATM traffic connections (Traffic profiles; Generating Termination Points; Switching matrix connections VP/VC; ATM fault management/OAM cells)</li><li>• Activating xDSL connections (XDSL profiles; Alignment process; Troubleshooting and fault elimination)</li><li>• Mass provisioning of xDSL subscribers</li></ul>
3	<ul style="list-style-type: none"><li>• Structure of AXH networks (AXH switched in cascade; ATM ring protection)</li><li>• Equipment protection</li><li>• Software download</li><li>• Performance management</li><li>• MIB transfer</li><li>• IMA functionality</li><li>• Circuit Emulation Services (CES)</li></ul>
4	<ul style="list-style-type: none"><li>• Voice services in the AXH (Basic information on the V5 protocol; Configuring V5.2 interfaces; Configuring POTS/ISDN subscribers; Configuring telephone subscribers - subtended case; Measuring physical line parameters; Mass provisioning (VTOA); Configuring V5.1 interfaces and subscribers)</li></ul>