



EDA 1500 GPON 6.0 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)
Delivery Enablers	
	Remote Training Lab (RTL)
	Web Portal (WP)
Ericsson Education E-Learning	
	EEOnline @ http://learning.ericsson.net/eeonline/

IP Networking



LZU 102 397 R4A

Description

This course will give the students an insight and understanding of the TCP / IP protocol stack from the physical layer to the application layer. The students will learn the operation of different protocols and applications within the TCP / IP suite such as ARP, BOOTP, DHCP, DNS, NIS, NTP, NFS, HTTP, FTP, SMTP, Telnet, FTP, TFTP. Students will learn about IP addresses, both classful and classless (CIDR) and how subnetting / aggregation operates. Students will learn about different network devices and will get a detailed understanding of Bridging, LAN Switching, Routing and Routing protocols. The hands-on exercises and analysers are used to facilitate the understanding of theory sessions.

Learning objectives

On completion of each module the participants will be able to:

- 1 List and explain IP Networking Protocols
 - 1.1 List the functions of the different bodies involved in IP standards / RFCs
 - 1.2 Analyze the OSI reference model and how it relates to the TCP / IP stack
 - 1.3 Explain Ethernet as Physical and Data Link Layer: MAC Address, CSMA/CD principles, Fast Ethernet, Gigabit Ethernet and speed negotiation
 - 1.4 Explain the operation of Hubs, Bridges, Switches and Routers
 - 1.5 Explain Wireless LANs
 - 1.6 Explain IP Protocol
 - 1.7 Explain IPv4 packet structure, protocol header and features
 - 1.8 Explain VLSM, CIDR, Subnetting, aggregation, NAT and NAPT
 - 1.9 Explain how to use ICMP utilities and traceroute command
 - 1.10 Perform exercises configuring IPv4 addresses, and check connectivity
 - 1.11 Demonstrate IPv6 packet structure, protocol header, features

- 2 List and explain IP Transport and Application Protocols
 - 2.1 Explain TCP, UDP and SCTP protocol structures, headers and functionality
 - 2.3 List and explain the operation of different protocols / applications such as ARP, BOOTP, DHCP, DNS, NIS, NTP, NFS, HTTP, FTP, SMTP, Telnet, FTP, TFTP

- 3 Explain and work with IP Routing
 - 3.1 List the purpose and operation of VLANs
 - 3.2 Explain and perform exercises of Spanning Tree Protocol (STP)
 - 3.3 Explain the operation of Static and Dynamic routing protocols
 - 3.4 Perform Static routing exercises
 - 3.5 Explain Autonomous System
 - 3.6 Explain Interior and Exterior Gateway Protocols
 - 3.7 List the differences between Vector Distance and Link State protocols.
 - 3.8 Explain and perform exercises of RIP routing protocol



- 3.9 Explain and perform exercises of OSPF routing protocol
- 3.10 Explain and perform exercises of BGP routing protocol

Target audience

The target audience for this course are personnel who are involved in IP networking or those who require more knowledge on IP addressing, application and routing protocols

Prerequisites

There are no pre-requisites

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 both classroom and in a technical environment using equipment or simulation 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	Short description of the topics in the course	Estimated time
1	• List the functions of the different Standard Bodies involved in IP / RFCs	0.5
	• Analyze the OSI Reference Model and how it relates to the TCP / IP stack	1
	• Explain Ethernet, Fast Ethernet, and Gigabit Ethernet	1
	• Explain the operation of Hubs, Bridges, Switches, Routers, Collision Domains and Broadcast Domains	1
	• Explain Wireless LANs	1.5
	• Explain IP Protocol	1.0
2	• Explain IPv4 (packet format, addressing and features)	1.0
	• Explain VLSM, CIDR, Subnetting, aggregation, NAT and NAPT	1.5
	• Explain ICMP protocol and traceroute	0.5
	• Perform exercises configuring IPv4 addresses, and check connectivity	2.5



	• Demonstrate IPv6 (packet format, addressing and features)	0.5
3	• Explain TCP, UDP and SCTP protocol structures, headers and functionality	2
	• List and explain the operation of different applications (ARP, BOOTP, DHCP, DNS, NIS, NTP, NFS, HTTP, FTP, SMTP, Telnet, FTP, TFTP)	3.0
	• List the purpose and operation of VLANs	1
4	• Explain and perform exercises of Spanning Tree Protocol (STP)	2.0
	• Explain the operation of Static and Dynamic routing protocols	1
	• Explain Autonomous System	
	• Explain Interior and Exterior Gateway Protocols	
	• List the differences between Vector Distance and Link State protocols.	
	• Perform Static routing exercises	1.0
	• Explain and perform exercises of RIP routing protocol	2
5	• Explain and perform exercises of OSPF routing protocol	3
	• Explain and perform exercises of BGP routing protocol	3



Networking Basics, An Overview



LZU 108 5940 R1B

Description

When you finish this course, you will have acquired knowledge of the basic networking principles and be able to describe how a PC communicates with other devices and networks.

Learning objectives

- 1 Explain the basics of networking
 - 1.1 Outline the input and output devices of a PC and how they are connected
 - 1.2 Describe the communication parameters necessary to understand connections
 - 1.3 Describe physical and logical network topologies
- 2 Describe how to connect a PC to a datacom network
 - 2.1 Identify and describe communication devices in a LAN (Hub, Switch and Router)
 - 2.2 Understand the different types of cables (UTP,STP and Fiber Optical)
 - 2.3 Explain how to connect computers to a LAN
 - 2.4 Explain the difference between Internet and Intranet
 - 2.5 Outline how to implement a Structured Cabling System (independent cabling system)

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers, Customer Care Administrators.

Prerequisites

There are no prerequisites for this course. The course is open to anyone wishing to gain a basic understanding of modern datacom networking technologies.



Duration and class size

The length of the course is 2 hours.

Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">• Network Basics	1 hour
	<ul style="list-style-type: none">• Your PC and the Datacom Network	1 hour



Networking and Ethernet Standards



LZU 108 5941 R2A

Description

Upon completion of this course, you will be able to explain the main principles of modern LAN and WAN technologies and concepts, from Ethernet to Wireless LAN.

Learning objectives

- 1 Describe Local Area Networks (LAN) and the Ethernet Standard
 - 1.1 Define the building blocks in a LAN
 - 1.2 Outline the different types of Ethernet standard
 - 1.3 Explain data transmission in an Ethernet LAN - Ethernet frame
 - 1.4 Understand Ethernet basics (CSMA/CD)
 - 1.5 Outline the difference between a Hub and a Switch
 - 1.6 Describe how to connect communication devices and design a LAN
- 2 Describe Wireless Local Area Networks (WLAN)
 - 2.1 Describe two basic types of Wireless LAN (Ad Hoc and Infrastructure mode)
 - 2.2 Outline the IEEE 802.11 standard and its applications
 - 2.3 Outline the properties of Home RF
 - 2.4 Understand Bluetooth drivers and communication models

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers.

Prerequisites

The participants should be familiar with Networking Basics, An Overview, LZU 108 5940.



Duration and class size

The length of the course is 2.5 hours.

Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">Local Area Networks and the Ethernet Standard	1 hour 10 mins
	<ul style="list-style-type: none">Wireless Local Area Networks, WLANs	1 hour 20 mins



IP Networking and Internetworking



LZU 108 5942 R2A

Description

If you need to have an understanding of the principles of IP networking and internetworking, then this three hour course will provide you with the information you need. This course covers the basics of IP addresses, internet domains, how IP packets are sent using routers to details on routing protocols and utilities used to get information on the network.

Learning objectives

- 1 Describe the basic concepts of IP networking
 - 1.1 Define virtual address and explain communication between networks
 - 1.2 Outline the difference between IPv4 and IPv6 addressing
 - 1.3 Outline how to configure the hosts in LAN (IP address, subnet mask, default gateway)
 - 1.4 Understand Internet domains and how the Domain Name System works
 - 1.5 Describe how to leave the local network using a Router
- 2 Describe the basic concepts of IP internetworking
 - 2.1 Describe the Internet (transit, regional and ISP networks)
 - 2.2 Understand routing domains and usage of two routing protocols (RIP and OSPF)
 - 2.3 Discover networks using two useful utilities PING and Traceroute

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers.

Prerequisites

The participants should be familiar with Networking and Ethernet Standards, LZU 108 5941.



Duration and class size

The length of the course is 3 hours.

Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">• IP Networking	1 hour 30 mins
	<ul style="list-style-type: none">• IP Internetworking	1 hour 30 mins

IP Network Applications



LZU 108 5943 R2A

Description

This course is recommended for anyone who needs a basic introduction to IP network applications and TCP/IP data communications.

Learning objectives

- 1 Describe network fundamentals and describe IP network applications
 - 1.1 Explain how Internet applications are addressed in a data packet
 - 1.2 Understand application models (Client/Server and Peer-to-Peer)
 - 1.3 Describe how a Web browser works
 - 1.4 Explain Web architecture and connecting to a Web server
 - 1.5 Explain how to send and receive Internet E-mail and outline the protocols used
 - 1.6 Outline IP telephony architecture
- 2 Explain the TCP/IP data communications architecture
 - 2.1 Describe TCP/IP layered approach to networking
 - 2.2 List the layers in the TCP/IP protocol stack
 - 2.3 List the Internet organizations (ISOC, IETF and ICANN)
 - 2.4 Explain IP addressing and routing and some important fields in an IP packet
 - 2.5 Outline how the Transmission Control Protocol (TCP) works
- 3 Explain the TCP/IP data communications architecture
 - 3.1 Describe TCP/IP layered approach to networking
 - 3.2 List the layers in the TCP/IP protocol stack
 - 3.3 List the Internet organizations (ISOC, IETF and ICANN)
 - 3.4 Explain IP addressing and routing and some important fields in an IP packet
 - 3.5 Outline how the Transmission Control Protocol (TCP) works

Target audience



The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers.

Prerequisites

The participants should be familiar with IP Networking and Internetworking WBL, LZU 108 5942.

Duration and class size

The length of the course is 3 hours.

Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">Using the Network: IP Network Applications	1 hour 30 mins
	<ul style="list-style-type: none">TCP/IP Data Communications Architecture	1 hour 30 mins



EDA1500 GPON 6.0 Overview



LZU 108 7570 R1A

Description

This self-paced, on-line training module provides the participants with a high-level overview of Ericsson's Gigabit Passive Optical Network (GPON) solution, its components and its support for Ethernet link aggregation. The training module also describes the non-blocking redundant switch fabric, multi-service management, IPTV capabilities, data services, and security measures.

Learning objectives

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

- 1 Describe fundamental principles of the GPON solution
- 2 Explain the functional layout of the Ericsson GPON platform
- 3 Identify the management interfaces and their methods of access
- 4 Describe the Ericsson GPON solution
- 5 Explain how the GPON component features and functions relate to the various applications
- 6 List the functions and key features of each component

Target audience

The target audiences for this course are: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers, and Customer Care Administrators.

Prerequisites

The participants should be familiar with basic knowledge about telecommunications and data communications.

Duration and class size

The length of the course is 1/2 day. The course is intended to be based on individual participation.



Learning situation

The training is a web-based learning (WBL) module.

Time schedule

The time required always depends on the technical knowledge of the individual participant. Therefore, the hours listed below are estimates.

Day	Topics in the course	Estimated time
1	<ul style="list-style-type: none">• GPON Overview	1.5 h
	<ul style="list-style-type: none">• EDA 1500 GPON 6.0 Solution	1.5 h

Access Networks, An Overview



LZU 108 5944 R2A

Description

When you complete this course you will be able to describe the basic concepts and technologies in both fixed and mobile access networks. These concepts are all presented in such a way to give you a solid foundation to build upon.

Learning objectives

- 1 Describe fixed network connections in access networks as described in Customer Product Information documents.
 - 1.1 Outline basic concepts such as bandwidth and technologies in access networks
 - 1.2 Describe access based on telephone networks (analogue and digital).
 - 1.3 Outline other access network technologies, such as fiber optics and microwave.
- 2 Describe the basic concepts of mobile access for GSM, GPRS and UMTS.
 - 2.1 Explain GSM architecture and outline how traffic flows in GSM.
 - 2.2 Explain GPRS architecture and outline traffic flow in a GPRS network.
 - 2.3 Explain UMTS architecture and outline traffic flow in a UMTS network.
 - 2.4 Describe Mobile IP.

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers.

Prerequisites

The participants should be familiar with IP Network Applications WBL, LZU 108 5943.

Duration and class size

The length of the course is 2 hours 30 minutes.



Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">• Fixed Network Connection: Access Networks• Connecting While Travelling: Mobile Access	1 hour 1 hour 30 mins

Core Networks, An Overview



LZU 108 5945 R2A

Description

Upon completion of this course, you will have acquired the knowledge to describe the technologies in the core networks, core network architecture and network operation and maintenance.

Learning objectives

- 1 Describe the technologies in the core network as found in the system release documentation
 - 1.1 Explain how a physical network is built
 - 1.2 Outline different types of multiplexing (TDM and WDM)
 - 1.3 Describe transmission technologies such as SDH and SONET
 - 1.4 Describe optical ring architecture and the basics of ATM and MPLS
- 2 Define core network architectures
 - 2.1 Understand traffic trends and outline multiservice backbone requirements
 - 2.2 Explain resource allocation and quality of service
 - 2.3 Outline performance optimization
 - 2.4 Define IPsec and VPN technology
- 3 Outline the main principles of network operation and maintenance
 - 3.1 Outline the steps involved in network operation
 - 3.2 Explain network traffic and outline some network traffic situations
 - 3.3 Explain monitoring using SNMP and PING
 - 3.4 Define steps and routines for error handling

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers.

Prerequisites

The participants should be familiar with IP Network Applications WBL, LZU 108 5943.



Duration and class size

The length of the course is 3 hours.

Learning situation

This is a web-based interactive training course with multimedia content.

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	<ul style="list-style-type: none">Technologies in the Core Network	1 hour
	<ul style="list-style-type: none">Core Network Architecture	1 hour
	<ul style="list-style-type: none">Network Operation and Maintenance	1 hour

IP Advanced



LZU 108 6748 R1A

Description

This course will give the students an insight and understanding of QoS, security issues and management of IP networks. The students will learn the operation of QoS supporting IP Protocols, VoIP protocols, Security topics such as authentication, confidentiality, and integrity and Simple Network Management Protocol. The hands-on exercises are used to facilitate the understanding of theory sessions.

Learning objectives

On completion of each module the participants will be able to:

- 1 Quality of Service (QoS)
 - 1.1 Analyze the enhancement of the IP networks to support transmission of Real Time data
 - 1.2 Describe QoS Basic Concepts
 - 1.3 Describe QoS Architectures
 - 1.4 Describe QoS Mechanisms
 - 1.5 Explain Resource Reservation Protocol (RSVP) – RFC 2205
 - 1.6 Explain Multi Protocol Label Switching (MPLS) – RFC 3031
 - 1.7 Explain Label Distribution Systems (LDP, RSVP-TE, BGP)
 - 1.8 Perform practical exercises covering Class Based Marking (CBM) using IP Precedence, DSCP and MPLS

- 2 Voice over IP (VoIP)
 - 2.1 Comment some VoIP Protocols: H.323, Media Gateway Control Protocol (MGCP) – RFC 2705
 - 2.2 Explain H.248 (MEGACO)
 - 2.3 Explain Session Initiation Protocol (SIP) – RFC 3261
 - 2.4 Explain Real-Time Transport Protocol (RTP) and RTP Control Protocol (RTCP) – RFC 3550 and RFC 3611
 - 2.5 Perform practical exercises covering SIP messages

- 3 IP Security (IP Sec)
 - 3.1 Analyze the existing security threats types
 - 3.2 Explain Access control lists (ACL)
 - 3.3 Explain the purpose and use of Firewalls
 - 3.4 Explain Data Integrity, Authenticity and Confidentiality
 - 3.5 Identify different Security Services (SSL, TLS, SSH, etc) – RFC 4366
 - 3.6 Explain how virtual Private Networks (VPN) operate
 - 3.7 Explain IP Security (IPSec) – RFC 4301
 - 3.8 Explain Authentication Header (AH) – RFC 4302



- 3.9 Explain Encapsulating Security Payload (ESP) – RFC 4303
- 3.10 Explain Internet Key Exchange (IKE) – RFC 2409 v1/RFC 4306 v2
- 3.11 Perform practical exercises covering the configuration of an IPSec VPN tunnel (Phase I and Phase II negotiation)

- 4 IP Network Management
 - 4.1 Explain ISO management areas (FM, CM, AM, PM and SM)
 - 4.2 Describe the architecture of the SNMP
 - 4.3 Describe functionalities available on SNMPv1, SNMPv2 and SNMPv3
 - 4.4 Explain Manager-Agent communication
 - 4.5 Explain SNMP operations (Get Request, GetNextRequest, GetResponse, SetRequest, Trap)
 - 4.6 Perform practical exercises covering analysis of SNMP messages exchanged between Manager and Agent

Target audience

The target audience for this course is the staff involved in IP networking and require more knowledge on IP networks to guarantee quality of service, security, and management of real-time traffic.

Prerequisites

IP Networking or equivalent knowledge.

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 both classroom and in a technical environment using equipment or simulation 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	Short description of the topics in the course	Estimated time
1	• Analyze the enhance of the internet to support transmission of real time data	0.5
	• Describe QoS Basic Concepts	0.5
	• Describe QoS Architectures	0.5
	• Describe QoS Mechanisms	0.5
	• Explain Resource Reservation Protocol (RSVP)	1.5
	• Explain Multi Protocol Label Switching (MPLS)	1.0
	• Explain Label Distribution Systems (LDP, RSVP-TE, BGP)	0.5
	• Perform practical exercises covering Class Based Marking (CBM) using IP Precedence, DSCP and MPLS	1.0
2	• Comment some VoIP Protocols: H.323 and Media Gateway Control Protocol (MGCP)	1.0
	• Explain H.248 (MEGACO)	1.5
	• Explain Session Initiation Protocol (SIP)	1.5
	• Explain Real-Time Transport Protocol (RTP) and RTP Control Protocol (RTCP) – RFC 3550	1.0
	• Perform practical exercises covering SIP messages	1.0
3	• Analyze existing security threats types	1.5
	• Explain Access control lists (ACL)	0.5
	• Explain the purpose and use of Firewalls	1.0
	• Explain Data Integrity, Authenticity and Confidentiality	2.0
	• Identify different Security Services (SSL, TLS, SSH, etc)	1.0
4	• Explain how virtual Private Networks (VPN) operate	1.0
	• Explain IP Security (IPSec)	1.0
	• Explain Authentication Header (AH)	1.0
	• Explain Encapsulating Security Payload (ESP)	1.0



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|---|---|
| 5 | <ul style="list-style-type: none">• Explain Internet Key Exchange (IKE) 1.0• Perform practical exercises covering the configuration of an IPSec VPN tunnel (Phase I and Phase II negotiation) 1.0• Explain ISO management areas (FM, CM, AM, PM and SM) 0.5• Describe the architecture of the SNMP 1.0• Describe functionalities available on SNMPv1, SNMPv2 and SNMPv3 1.5• Explain Manager-Agent communication 1.0• Explain SNMP operations (Get Request, GetNextRequest, GetResponse, SetRequest, Trap) 1.0• Perform practical exercises covering analysis of SNMP messages exchanged between Manager and Agent 1.0 |
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EDA 1500 GPON 6.0 Introduction



LZU 108 7278 R1A

Description

This course provides the participants with an overview of Ericsson's Gigabit Passive Optical Network (GPON) solution, its components and its support for Ethernet link aggregation. The training also describes the non-blocking redundant switch fabric, multi-service management, IPTV capabilities, data services, and security measures.

Learning objectives

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

- 1 Describe fundamental principles of the GPON solution
- 2 Diagram the functional layout of the Ericsson GPON platform
- 3 List the functions and key features of each component
- 4 Describe the Ericsson GPON solution
- 5 Demonstrate how GPON component features and functions relate to the triple play service applications
- 6 Identify the management interfaces and their methods of access

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, System Administrators, Application Developers, Business Developers, Customer Care Administrators.

Prerequisites

The participants should be familiar with basic knowledge about telecommunications and data communications.

Duration and class size

The length of the course is 1 day and the maximum number of participants is 16.



Learning situation

The training is based on instructor-led lessons provided in a classroom environment.

Time schedule

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

Day	Topics in the course	Estimated time
1	<ul style="list-style-type: none">• GPON Overview	2.0 h
	<ul style="list-style-type: none">• EDA 1500 GPON Solution	4.0 h

Learning situation

The training is based on theoretical instructor-led lessons provided in a classroom environment.

Time schedule

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

Day	Topics in the course	Estimated time
1	<ul style="list-style-type: none">• GPON Overview	2.5
	<ul style="list-style-type: none">• EDA 1500 GPON 6.0 Solution	3.5



EDA 1500 GPON 6.0 Implementation



LZU 108 7279 R1A

Description

The course provides GPON product and solution details in a series of service based implementation modules. It includes provisioning training for all currently available Ericsson Gigabit Passive Optical Network (GPON) services. The course consists of a series of instructor led modules containing a combination of concepts and lab exercises.

Learning objectives

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

- 1 List the turn-up procedures
- 2 Identify the major functions of the EntriView EMS
- 3 Demonstrate understanding of ONT registration methods
- 4 Perform ONT activation with method A and C
- 5 Implement voice, data and video, Triple-Play services
- 6 Successfully complete software maintenance procedures

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers, System Technicians, Service Technicians, System Engineers, Service Engineers, Field Technicians, Customer Care Administrators.

Prerequisites

The participants should be familiar with telecommunications and data communications concepts. Some familiarity with GPON and the EDA 1500 is also important.

Successful completion of the following courses:

EDA1500 GPON 6.0 Introduction LZU 108 7278 R1A

Duration and class size

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



Learning situation

The training is based on conceptual instructor-led lesson modules and practical exercises provided in a classroom/lab environment.

Time schedule

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

Day	Topics in the course	Estimated time
1	<ul style="list-style-type: none">▪ BLM 1500 Turn-up	3 hours
1	<ul style="list-style-type: none">▪ Using the EMS for network management	3 hours
2	<ul style="list-style-type: none">▪ ONT functionality and activation	3 hours
2	<ul style="list-style-type: none">▪ Implementing data services	3 hours
3	<ul style="list-style-type: none">▪ Implementing voice services	2 hours
3	<ul style="list-style-type: none">▪ Implementing video services	2.5 hours
3	<ul style="list-style-type: none">▪ Performing Software Maintenance	1.5 hours

EDA 1500 GPON 6.0 Advanced



LZU 108 7337 R1A

Description

This course provides GPON product and solution details in a series of service based deployment and diagnostic modules. It provides in-depth provisioning training for all available Ericsson Gigabit Passive Optical Network (GPON) services. The course consists of a series of instructor led modules containing a combination of concepts and lab exercises.

Learning objectives

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

- 1 List the possible deployment options utilizing the new 6.0 features
- 2 Successfully complete deployment exercises using these features during the labs
 - 2.1 Implement single and double VLANs using translations options
 - 2.2 Apply traffic management using filters, rate limits and shaping
 - 2.3 Deploy QoS in the network
 - 2.4 Implement IGMP deployments with VLAN and Prioritization
- 3 Demonstrate knowledge of security capabilities by provisioning authentication and prevention mechanisms
- 4 Resolve issues by effectively isolating and resolving problems using hardware and software diagnostics

Target audience

The target audience for this course is: Service Planning Engineers, Service Design Engineers, Network Design Engineers, Network Deployment Engineers, Service Deployment Engineers

Prerequisites

Successful completion of the following courses:

- LZU 108 7278 EDA1500 GPON 6.0 Introduction
- LZU 108 7279 EDA1500 GPON 6.0 Implementation



Duration and class size

The length of the course is 4 days and due to the exercise requirements, the maximum number of participants is limited to 8.

Learning situation

The training is based on conceptual instructor-led lesson modules and advanced practical exercises provided in a classroom/lab 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
1	<ul style="list-style-type: none">• What's new in Release 6	2 hours
1	<ul style="list-style-type: none">• Network Deployment Concepts	4 hours
2	<ul style="list-style-type: none">• Triple Play Service Deployment	7 hours
3	<ul style="list-style-type: none">• Traffic Management	5 hours
4	<ul style="list-style-type: none">• Security Options	2 hours
4	<ul style="list-style-type: none">• Troubleshooting	4 hours