Implementing Cisco MPLS (MPLS)

ID MPLS **Price** 3,395.— €(excl. tax) **Duration** 5 days

Course Overview

The **Implementing Cisco Multiprotocol Label Switching** training teaches you the high-performance method for forwarding packets through a network. MPLS enables routers at the edge of a network to apply simple labels to packets. This practice allows the edge devices to switch packets according to labels, with minimal lookup overhead. MPLS integrates the performance and traffic-management capabilities of data link Layer 2 with the scalability and flexibility of network Layer 3 routing. When used in conjunction with other standard technologies, MPLS gives the ability to support value-added features.

Please note that this course lab access is valid for 60 hours or 90 days whichever is the shorter, so please ensure you exit the lab exercises when not in use. How You'll Benefit

- Acquire the skill of implementing MPLS high-performance methods for forwarding packets in a network
- Learn to configure routers at the network edge to apply simple labels to packets
- Gain the knowledge to enable edge devices, ATM switches, or existing routers to switch packets based on labels within the service provider core
- Master the skill of minimizing lookup overhead in the packet-switching process
- Gain proficiency in integrating the performance and traffic-management capabilities of data-link Layer 2 using MPLS
- Acquire the skill of combining the scalability and flexibility of network Layer 3 routing through MPLS
- Learn to leverage MPLS with other standard technologies to implement value-added features for service providers' networks

Who should attend

- Network administrators
- Network engineers
- Network managers
- Systems engineers (who would like to implement MPLS and MPLS Traffic Engineering)

Prerequisites

It is recommended, but not required, to have the following skills and knowledge before attending this course:

- Intermediate to advanced knowledge of Cisco IOS Software configuration
- Configuring and troubleshooting EIGRP, OSPF, IS-IS and BGP

The following Cisco courses can help you gain the knowledge you need to prepare for this course:

- Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)

Course Objectives

Upon completion of the course, students will have the knowledge and skills to:

- Describe the features of MPLS
- Describe how MPLS labels are assigned and distributed
- Identify the Cisco IOS tasks and command syntax necessary to implement MPLS on frame-mode Cisco IOS platforms
- Describe the MPLS peer-to-peer architecture and explain the routing and packet forwarding model in this architecture
- Identify the Cisco IOS command syntax required to successfully configure, monitor, and troubleshoot VPN operations
- Identify how the MPLS VPN model can be used to implement managed services and internet access
- Describe the various internet access implementations that are available and the benefits and drawbacks of each model
- Provide an overview of MPLS Traffic Engineering

Detailed Course Outline

- MPLS Features
- Label Assignment and Distribution
- Frame-Mode MPLS Implementation on Cisco IOS

Platforms
- MPLS Virtual Private Network Technology
- MPLS VPN Implementation
- Complex MPLS VPNs
- Internet Access and MPLS VPNs
- MPLS Traffic Engineering Overview

About Fast Lane

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