

MPLS

Implementing Cisco MPLS 2.3



This course prepares students for the test 642-611 (MPLS) or 642-691 (BGP + MPLS), which is part of the CCIP certification.

Course Contents

- MPLS Concepts, Protocols and Technology
- Label Allocation and Distribution
- Implementation in Cisco IOS on Frame Switching Hardware
- VPN Concepts with MPLS
- Configuring MPLS VPNs
- VPN Topologies and Design
- Internet Access from a VPN
- VPNs in large Network Structure and Migration Strategies
- MPLS Traffic Engineering

Detailed Table of Content

Knowledge Prerequisites

Cisco Certified Network Associate (CCNA) certification or equivalent level of working knowledge and experience, completion of CCNA Basics and ICND courseware is recommended training for CCNA. Equivalent knowledge and skill that can be acquired by attending Cisco's training courses ROUTE - Implementing Cisco IP Routing and BGP - Configuring BGP on Cisco Routers. Practical experience with deploying and operating networks based on Cisco network devices and Cisco IOS is strongly recommended. The course QoS is highly recommended because QoS knowledge is assumed in several sections of the course.



Reservation and Registration

We will be glad to make a free and non-binding course reservation for you for the duration of two weeks. On www.experteach-benelux.com under *Registration*, you can conveniently make course reservations, registrations, and hotel reservations. Alternatively, call us under +31 (0)76 52 32 950.

For closed groups of participants, we can modify the course contents according to your requirements. Do not hesitate to contact us!



MPLS

5 days €2,550 exclusive of V.A.T.

Course date (dd.mm.yy)/Location

02.04.-06.04.12 Breda 25.06.-29.06.12 Brussels

Up-to-date information: www.experteach-benelux.com MPLC



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- 1. MPLS Features**
 - 1.1. Describing Basic MPLS Concepts
 - 1.2. Describing MPLS Labels and Label Stack
 - 1.3. Identifying MPLS Applications
- 2. Label Assignment and Distribution**
 - 2.1. Discovering LDP Neighbors
 - 2.2. Describing Typical Label Distribution in Frame-Mode MPLS
 - 2.3. Describing Convergence in Frame-Mode MPLS
- 3. Frame-Mode MPLS Implementation on Cisco IOS Platforms**
 - 3.1. Using Cisco Express Forwarding Switching
 - 3.2. Configuring Frame-Mode MPLS on Cisco IOS Platforms
 - 3.3. Monitoring Frame-Mode MPLS on Cisco IOS Platforms
 - 3.4. Troubleshooting Frame-Mode MPLS on Cisco IOS Platforms
- 4. MPLS VPN Technology**
 - 4.1. Introducing Virtual Private Networks
 - 4.2. Introducing MPLS VPN Architecture
 - 4.3. Introducing the MPLS VPN Routing Model
 - 4.4. Forwarding MPLS VPN Packets
- 5. MPLS VPN Implementation**
 - 5.1. Using MPLS VPN Mechanisms of Cisco IOS Platforms
 - 5.2. Configuring VRF Tables
 - 5.3. Configuring an MP-BGP Session Between PE Routers
 - 5.4. Configuring Small-Scale Routing Protocols Between PE and CE Routers
 - 5.5. Monitoring MPLS VPN Operations
 - 5.6. Configuring OSPF as the Routing Protocol Between PE and CE Routers
 - 5.7. Configuring BGP as the Routing Protocol Between PE and CE Routers
 - 5.8. Troubleshooting MPLS VPNs
- 6. Complex MPLS VPNs**
 - 6.1. Introducing Overlapping VPNs
 - 6.2. Introducing Central Services VPNs
 - 6.3. Using Advanced VRF Import and Export Features
 - 6.4. Introducing the Managed CE Routers Service
- 7. Internet Access and MPLS VPNs**
 - 7.1. Combining Internet Access with MPLS VPNs
 - 7.2. Implementing Separate Internet Access and VPN Services
- 7.3. Implementing Internet Access as a Separate VPN**
- 8. MPLS TE Overview**
 - 8.1. Introducing Traffic Engineering Concepts
 - 8.2. Understanding MPLS TE Components
 - 8.3. Configuring MPLS Traffic Engineering on Cisco IOS Platforms
 - 8.4. Monitoring Basic MPLS TE on Cisco IOS Platforms



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