Cisco - MPLS - Implementing Cisco MPLS v3.0

This course includes Cisco Training Exclusives

This course is designed to introduce you to MPLS concepts, installation, migration, operation, inspection, and troubleshooting. You’ll start with an overview of MPLS and its operation, after which you’ll concentrate on MPLS Virtual Private Network (VPN) deployment. The MPLS fundamentals covered in this class will provide the theory and hands-on knowledge to implement, integrate, and deploy an MPLS infrastructure. The MPLS VPN lecture and labs will cover the models, diversity, implementation, troubleshooting, and flexibility of MPLS VPNs.

Skills Gained

- Label and tag distribution protocol
- MPLS VPNs/VPN deployment models
- Multiprotocol BGP
- MPLS VPN configurations, integration, and management

Who Can Benefit

- Anyone responsible for designing, implementing, or troubleshooting MPLS networks or solutions based on MPLS technology

Course Details

Lab 1: Configure an IP Routed Network

- Establish the Service Provider IGP Routing Environment.

Lab 2: Enabling MPLS in the Core Environment

- Perform initial configuration of MPLS on routers.

Lab 3: Initial MPLS VPN Setup

- Configure and verify MP-BGP and VRFs tables.
Lab 4: Running EIGRP Between the PE and CE Routers

- Turn on an EIGRP VPN.

Lab 5: Running OSPF Between the PE and CE Routers

- Turn on an OSPF VPN.

Lab 6: Running BGP Between the PE and CE Routers

- Turn on a BGP VPN. Configure the primary and backup BGP links.

Lab 7: Configuring Overlapping VPNs

- Enable overlapping VPNs between multiple VPN clients.

Lab 8: Merging Service Providers

- Enable MPLS with a central core device and migrate the MPLS core to IS-IS. Enable route reflectors in the core.

Lab 9: Enabling Common Services VPNs

- Configure a Network Management VPN and establish connectivity between the NMS VRF and other VRFs.

Lab 10: Configuring Central Site Internet Connectivity with an MPLS VPN

- Establish routing connectivity between the customer and Internet routers.

Lab 11: Implementing Basic MPLS Traffic Engineering

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