

Junos MPLS and VPNs

JMV



Delivery Type: Classroom

Duration: 5 days

Overview

This five-day course is designed to provide students with MPLS-based virtual private network (VPN) knowledge and configuration examples. The course includes an overview of MPLS concepts such as control and forwarding plane, RSVP Traffic Engineering, LDP, Layer 3 VPNs, next-generation multicast virtual private networks (MVPNs), BGP Layer 2 VPNs, LDP Layer 2 Circuits, and virtual private LAN service (VPLS). This course also covers Junos operating system-specific implementations of Layer 2 control instances and active interface for VPLS. This course is based on the Junos OS Release 10.3R1.9.

Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos OS and in device operations.

Pre-Requisites

Students should have intermediate-level networking knowledge and an understanding of the Open Systems Interconnection (OSI) model and the TCP/IP protocol suite. Students should also have familiarity with the Protocol Independent Multicast-Sparse Mode (PIM-SM) protocol. Students should also attend the "Introduction to the Junos Operating System (IJOS)", "Junos Routing Essentials (JRE)", "Junos Service Provider Switching (JSPX)" and "Junos Intermediate Routing (JIR)" courses prior to attending this class.

Objectives

After successfully completing this course, you should be able to:

- ✓ Explain common terms relating to MPLS.
- ✓ Explain routers and the way they forward MPLS packets.

- ✓ Explain packet flow and handling through a label-switched path (LSP).
- ✓ Describe the configuration and verification of MPLS forwarding.
- ✓ Understand the information in the Label Information Base.
- ✓ Explain the two label distribution protocols used by the Junos OS.
- ✓ Configure and troubleshoot RSVP-signaled and LDP-signaled LSPs.
- ✓ Explain the constraints of both RSVP and LDP.
- ✓ Explain the path selection process of RSVP without the use of the Constrained Shortest Path First (CSPF) algorithm.

Target Audience

This course benefits individuals responsible for configuring and monitoring devices running the Junos OS