

JUNOS SERVICE PROVIDER SWITCHING (JSPX)

Course Code: 100557

Gain switching knowledge and configuration examples that are most common in a service provider implementation.

The Junos Service Provider Switching course is a two-day course that provides students with intermediate switching knowledge and configuration examples that are most common in a service provider implementation. The course includes an overview of switching concepts such as LANs, Layer 2 address learning, bridging, virtual LANs (VLANs), provider bridging, provider backbone bridging, VLAN translation, spanning-tree protocols, and Ethernet Operation, Administration, and Maintenance (OAM).

This course also covers Junos operating system-specific implementations of Integrated Routing and Bridging (IRB) interfaces, routing instances, virtual switches, load balancing, and port mirroring. Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos Software and device operations.

What You'll Learn

- Introduction to carrier Ethernet
- Describe the function of an Ethernet LAN
- Describe Ethernet frame filtering
- Implement VLAN tagging
- Implement IRB
- Implement a virtual switch
- Describe interconnecting routing instances
- Describe provider bridging
- Configure and monitor provider bridging
- Configure and monitor provider backbone bridging
- Explain the purpose of the Spanning Tree Protocol (STP)
- Configure and monitor the STP, the RSTP, the MSTP, and the VSTP
- Explain the purpose of bridge protocol data unit (BPDU), loop, and root protection
- Describe the basic operation of link fault management (LFM)
- Describe the basic operation of connectivity fault management (CFM)

- Configure and monitor Ethernet OAM
- Describe and configure Ethernet Ring Protection (ERP)

Who Needs to Attend

Network engineers, technical support personnel, reseller support engineers, and others responsible for implementing and/or maintaining the Juniper Networks products covered in this course.

Prerequisites

Students must have basic networking knowledge and an understanding of the OSI model and the TCP/IP protocol suite.

Students should also have attended the Introduction to the Junos Operating System(IJOS) and the Junos Routing Essentials (JRE) courses or have equivalent experience prior to attending this class.

JUNOS SERVICE PROVIDER SWITCHING (JSPX)

Course Code: 100557

CLASSROOM LIVE

\$1,595 USD

2 Day

Classroom Live Outline

Chapter 1: Course Introduction

Chapter 2: Carrier Ethernet

- Ethernet in the WAN
- Ethernet Standards Organizations
- MX Series Layer 2 Features

Chapter 3: Ethernet Switching and Virtual LANs

- Ethernet LANs
- Bridging
- Configuring and Monitoring VLANs
- Configuring and Monitoring IRB
- Layer 2 Address Learning and Forwarding
- Layer 2 Firewall Filtering

Chapter 4: Virtual Switches

- Routing Instances Overview
- Configuring and Monitoring Virtual Switches
- Interconnecting Routing Instances

Chapter 5: Provider Bridging

- Expanding the Bridged Network
- Provider Bridging
- Configuring and Monitoring Provider Bridging
- Provider Backbone Bridging
- Configuring and Monitoring Provider Backbone Bridging

Chapter 6: Spanning-Tree Protocols

- Overview of STP

- Overview of RSTP
- Overview of MSTP
- Overview of VSTP
- Configuring and Monitoring Spanning-Tree Protocols
- Understanding BPDU, Loop, and Root Protection

Chapter 7: Ethernet OAM

- OAM Overview
- LFM
- CFM
- Configuring and Monitoring OAM

Chapter 8: Ethernet Ring Protection

- ERP Overview
- Configuring and Monitoring ERP
- LAG Overview
- Configuring and Monitoring a LAG

JUNOS SERVICE PROVIDER SWITCHING (JSPX)

Course Code: 100557

VIRTUAL CLASSROOM LIVE

\$1,900 USD

2 Day

Virtual Classroom Live Outline

Chapter 1: Course Introduction

Chapter 2: Carrier Ethernet

- Ethernet in the WAN
- Ethernet Standards Organizations
- MX Series Layer 2 Features

Chapter 3: Ethernet Switching and Virtual LANs

- Ethernet LANs
- Bridging
- Configuring and Monitoring VLANs
- Configuring and Monitoring IRB
- Layer 2 Address Learning and Forwarding
- Layer 2 Firewall Filtering

Chapter 4: Virtual Switches

- Routing Instances Overview
- Configuring and Monitoring Virtual Switches
- Interconnecting Routing Instances

Chapter 5: Provider Bridging

- Expanding the Bridged Network
- Provider Bridging
- Configuring and Monitoring Provider Bridging
- Provider Backbone Bridging
- Configuring and Monitoring Provider Backbone Bridging

Chapter 6: Spanning-Tree Protocols

- Overview of STP

- Overview of RSTP
- Overview of MSTP
- Overview of VSTP
- Configuring and Monitoring Spanning-Tree Protocols
- Understanding BPDU, Loop, and Root Protection

Chapter 7: Ethernet OAM

- OAM Overview
- LFM
- CFM
- Configuring and Monitoring OAM

Chapter 8: Ethernet Ring Protection

- ERP Overview
- Configuring and Monitoring ERP
- LAG Overview
- Configuring and Monitoring a LAG

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

Date created: 1/26/2026 7:43:35 PM

Copyright © 2026 Global Knowledge Training LLC. All Rights Reserved.