Junos Enterprise Switching

Category: Networking & Security | **Vendor:** Juniper

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Junos Enterprise Switching is a two-day course that provides students with intermediate switching knowledge and configuration examples. This course includes an overview of switching concepts and operations, virtual LANs (VLANs), the Spanning Tree Protocol (STP), port and device security features, and high availability (HA) features.

Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos operating system and in monitoring device operations. This course uses Juniper Networks EX Series Ethernet Switches for the hands-on component, but the lab environment does not preclude the course from being applicable to other Juniper hardware platforms running the Junos OS. This course is based on the Junos OS Release 12.2R1.8.

About This Course

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Who Should Attend

This course benefits individuals responsible for configuring and monitoring EX Series switches.

Prerequisites & Entry Requirements

General Prerequisites:

Students should have basic networking knowledge and an understanding of the Open Systems Interconnection (OSI) reference model and the TCP/IP protocol suite. Students should also attend the Introduction to the Introduction to the Junos Operating System (IJOS) and the (!) courses prior to attending this class.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

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

- List the benefits of implementing switched LANs.
- Describe transparent bridging concepts and operations.
- Describe terms and design considerations for switched LANs.
- List enterprise platforms that support Layer 2 switching.
- Configure interfaces for Layer 2 switching operations.
- Display and interpret the Ethernet switching table.
- Explain the concept of a VLAN.
- Describe access and trunk port modes.
- Configure and monitor VLANs.
- Describe voice VLAN and native VLAN concepts.
- Explain inter-VLAN routing operations.
- Configure and monitor inter-VLAN routing.
- Explain when a spanning tree is required.
- Describe STP and Rapid Spanning Tree Protocol (RSTP) operations.
- List some advantages of using RSTP over STP.
- Configure and monitor RSTP.
- Describe the bridge protocol data unit (BPDU), Loop, and Root protection features.
- Configure and monitor the BPDU, Loop, and Root protection features.
- List and describe various port security features.
- Configure and monitor port security features.
- Describe the storm control feature.
- Configure and monitor storm control.
- Describe firewall filter support for EX Series Ethernet Switches.
- Implement and monitor the effects of a firewall filter.
- List and describe some features that promote high availability.
- Configure and monitor high availability features.
- Describe the basic concepts and operational details of a virtual chassis.
- Implement a virtual chassis with multiple EX4200 switches.

Detailed Course Outline

Day 1

Chapter 1: Course Introduction

Chapter 2: Layer 2 Switching

- Ethernet Bridging Basics
- Terminology and Design Considerations
- Overview of Enterprise Switching Platforms
- Enabling and Monitoring Layer 2 Switching Operations
- Lab 1: Implementing Layer 2 Switching

Chapter 3: Virtual Networks

- Overview of VLANs
- Configuring and Monitoring VLANs
- Voice VLAN
- Native VLAN
- Routed VLAN Interfaces
- Lab 2: Implementing Virtual Networks

Chapter 4: Spanning Tree

- Spanning Tree Protocol

- Rapid Spanning Tree Protocol
- Configuring and Monitoring STP and RSTP
- Protection Features: BPDU Protection
- Protection Features: Loop Protection
- Protection Features: Root Protection
- Lab 3: Implementing Spanning Tree

Day 2

Chapter 5: Port Security

- MAC Limiting
- DHCP Snooping
- Dynamic ARP Inspection (DAI)
- IP Source Guard
- Lab 4: Implementing Port Security

Chapter 6: Device Security and Firewall Filters

- Storm Control
- Firewall Filters
- Lab 5: Implementing Storm Control and Firewall Filters

Chapter 7: Virtual Chassis

- Overview of Virtual Chassis
- Configuring and Monitoring a Virtual Chassis
- Lab 6: Implementing Virtual Chassis Systems

Chapter 8: High Availability Features

- Overview of High Availability Networks
- Link Aggregation Groups
- Redundant Trunk Groups
- Lab 7: Implementing High Availability Features

Appendix A: Ethernet Ring Protection Switching

Appendix B: Multiple Spanning Tree Protocol

Skills You Will Learn:

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

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Frequently Asked Questions

Q: What delivery options are available for Junos Enterprise Switching?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 2-day Junos Enterprise Switching course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Junos Enterprise Switching training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Junos Enterprise Switching?

Yes, we provide corporate training, dedicated training, and closed classes for Junos Enterprise Switching. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Junos Enterprise Switching, Enterprise Routing & Switching, JEX

Q: Why choose Nexus Human for Junos Enterprise Switching?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Junos Enterprise Switching training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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