Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Advanced Junos Enterprise Switching (AJEX)

CODE:	LENGTH:	PRICE:
JUN_AJEX	16 Hours (2 days)	£1,495.00

Description

This two-day course provides detailed coverage of VLAN operations, Multiple Spanning Tree Protocol (MSTP) and VLAN Spanning Tree Protocol (VSTP), authentication and access control for Layer 2 networks, IP telephony features, class of service (CoS), monitoring and troubleshooting tools and features supported on Juniper Networks® EX Series Switches.
Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos operating system (OS) and monitoring device and protocol operations. This course uses Juniper Networks® EX4300 Switches for the hands-on component, but the lab environment does not preclude the course from being applicable to other Juniper hardware platforms running Junos OS. This course is based on Junos OS Release 21.4R3.

Objectives

•Modify traffic flows within a VLAN.
•Manage dynamic VLAN registration.
•Implement Layer 2 tunnel traffic through Ethernet networks.
•Review the purpose and operations of a spanning tree.
•Implement multiple spanning-tree instances in a network.
•Implement one or more spanning-tree instances for a VLAN.
•List the benefits of implementing end-user authentication.
•Explain the operations of various access control features.
•Configure and monitor various access control features.
•Describe processing considerations after enabling multiple authentication and access control features.
•Describe some common IP telephony deployment scenarios.
•Describe features that facilitate IP telephony deployments.
•Configure and monitor features used in IP telephony deployments.
•Explain the purpose and basic operations of CoS.
•Describe CoS features used in Layer 2 networks.
•Configure and monitor CoS in a Layer 2 network.
•List common issues that disrupt network operations.
•Identify tools used in network troubleshooting.
•Use available tools to resolve network issues.

Audience

Individuals responsible for configuring and monitoring EX Series Switches using Junos OS.

Prerequisites

•Basic networking knowledge and an understanding of the OSI reference model and the TCP/IP protocol suite
•Completion of the Introduction to the Junos Operating System course prior to attending this class
•Completion of the Junos Enterprise Switching course prior to attending this class

Programme

DAY 1

Implementing VLAN Traffic Management
•Explain how to add user traffic to VLANs
•Describe how to restrict traffic flows within a VLAN Module 22 Advanced Ethernet Switching
•Configure dynamic VLAN registration using MVRP
•Implement Layer 2 tunnel traffic through Ethernet networks
Lab 1: Advanced Ethernet Switching Module 32 MSTP
•Review the Spanning Tree Protocol
•Describe the purpose and operations of spanning tree
•Implement multiple spanning-tree instances Module 42 VSTP
•Explain how to configure an OSPF-based IP fabric underlay network
•Describe how to configure an EBGP-based IP fabric underlay network
Lab 2: Implementing MSTP and VSTP Module 52 Authentication and Access Control
•Identify the benefits of implementing end-user authentication
•Describe the operations of the 802.1X access control features Module 62 Access Control Features—MAC RADIUS and Captive Portal
•Configure and monitor MAC RADIUS access control features
•Configure and monitor the captive portal access control features
•Describe processing considerations after enabling multiple authentication and access control features
Lab 3: Authentication and Access Control
IP Telephony Features—Power over Ethernet, Neighbor Discovery Using LLDP
•Describe common IP telephony deployment scenarios
•Explain the Power over Ethernet feature of IP telephony
•Describe the neighbor discovery feature of IP telephony Module 82 IP Telephony Features—Voice VLAN
•Describe IP telephony's voice VLAN feature
•Implement IP telephony features
Lab 4: Deploying IP Telephony Features Module 92 Class of Service—Overview
•Identify network traffic challenges
•Implement class-of-service Module 102 Implementing Class of Service
•Configure and monitor class of service in a Layer 2 network
•Perform class-of-service troubleshooting
DAY 2 Lab 5: Implementing Class of Service
Introduction to Monitoring and Troubleshooting Layer 2 Enterprise Networks
•Explain the basic troubleshooting flow
•Evaluate troubleshooting steps Module 122 Monitoring and Troubleshooting Layer 2 Enterprise Networks
•Identify tools used in network troubleshooting
•Use available tools to resolve network issues
Lab 6: Monitoring and Troubleshooting Layer 2 Networks
SELF-STUDY MODULES
Juniper Mist Wired Assurance—Overview
•Provide an overview of Juniper Mist Wired Assurance
•Describe the provisioning options and how they work Module 142 Juniper Mist Wired Assurance, Day One—Deployment and Configuration
•Describe the deployment options and how they work
•Describe the configuration process
•List Wired Assurance SLEs

Test and Certification

RELATED JUNIPER PRODUCTS
•EX Series
RELATED CERTIFICATION
•JNCIP-ENT

Session Dates

Date	Location	Time Zone	Language	Type	Guaranteed	PRICE
17 Nov 2025	Virtual Classroom	GMT	English	Instructor Led Online		£1,495.00

Additional Information

This training is also available as onsite training. Please contact us to find out more.