Enterprise Computing Solutions - Education Services

TRAINING OFFERING

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Juniper JNCIS-ENT (JEX and JIR - 4 days) Bundle

CODE:	LENGTH:	PRICE:
JUN_JNCIS_ENT	32 Hours (4 dage)	kr 21,652.00

Description

Attend the JEX and JIR courses in the same week and save ££s*!
This course combines the two courses JEX - Junos Enterprise Switching and JIR - Junos Intermediate Routing.
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.
Junos Intermediate Routing is a two-day course that provides students with intermediate routing knowledge and configuration examples. The course includes an overview of protocol-independent routing features, load balancing and filter-based forwarding, OSPF, BGP, IP tunneling, 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 and Juniper Networks SRX Series Services Gateways 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.
These courses are intermediate-level.
*Please note that this offer is not to be used in conjunction with any other discount structure or promotion. Please quote JUN_JNCIS_ENT when booking.

Objectives

JEX
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.
- Describe the basic concepts and operational details of a virtual chassis.
- Implement a virtual chassis with multiple EX4200 switches.
- List and describe some features that promote high availability.
- Configure and monitor high availability features.

JIR

After successfully completing this course, you should be able to:
- Describe typical uses of static, aggregate, and generated routes.
- Configure and monitor static, aggregate, and generated routes.
- Explain the purpose of Martian routes and add new entries to the default list.
- Describe typical uses of routing instances.
- Configure and share routes between routing instances.
- Describe load-balancing concepts and operations.
- Implement and monitor Layer 3 load balancing.
- Illustrate benefits of filter-based forwarding.
- Configure and monitor filter-based forwarding.
- Explain the operations of OSPF.
- Describe the role of the designated router.
- List and describe OSPF area types.
- Configure, monitor, and troubleshoot OSPF.
- Describe BGP and its basic operations.
- Name and describe common BGP attributes.
- List the steps in the BGP route selection algorithm.
- Describe BGP peering options and the default route advertisement rules.
- Configure and monitor BGP.
- Describe IP tunneling concepts and applications.
- Explain the basic operations of generic routing encapsulation (GRE) and IP over IP (IP-IP) tunnels.
- Configure and monitor GRE and IP-IP tunnels.
- Describe various high availability features supported by the Junos OS.
- Configure and monitor some of the highlighted high availability features.

Audience

This course benefits individuals responsible for configuring and monitoring devices running the Junos OS, and for configuring and monitoring EX Series switches.

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 Junos Operating System (IJOS) and Junos Routing Essentials (JRE) courses prior to attending this class.

Programme

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

Day 3

Chapter 1: Course Introduction

Chapter 2: Protocol-Independent Routing
- Static Routes
- Aggregated Routes
- Generated Routes
- Martian Addresses
- Routing Instances
- Lab 1: Protocol-Independent Routing

Chapter 3: Load Balancing and Filter-Based Forwarding
- Overview of Load Balancing
- Configuring and Monitoring Load Balancing
- Overview of Filter-Based Forwarding
- Configuring and Monitoring Filter-Based Forwarding
- Lab 2: Load Balancing and Filter-Based Forwarding

Chapter 4: Open Shortest Path First
- Overview of OSPF
- Adjacency Formation and the Designated Router Election
- OSPF Scalability
- Configuring and Monitoring OSPF
- Basic OSPF Troubleshooting
- Lab 3: Open Shortest Path First

Day 4

Chapter 5: Border Gateway Protocol
- Overview of BGP
- BGP Attributes
- IBGP Versus EBGP
- Configuring and Monitoring BGP
- Lab 4: Border Gateway Protocol

Chapter 6: IP Tunneling
- Overview of IP Tunneling
- GRE and IP-IP Tunnels
- Implementing GRE and IP-IP Tunnels
- Lab 5: IP Tunneling

Chapter 7: High Availability
- Overview of High Availability Networks
- GR
- Graceful RE Switchover
- Nonstop Active Routing
- BFD
- VRRP
- Lab 6: High Availability

Appendix A: IPv6
- Introduction to IPv6
- Routing Protocol Configuration Examples
- Tunneling IPv6 over IPv4
- Lab 7 (Optional): IPv6

Appendix B: IS-IS
- Overview of IS-IS
- Overview of IS-IS PDUs
- Adjacency Formation and DIS Election
- Configuring and Monitoring IS-IS
- Basic IS-IS Troubleshooting
- Lab 8 (Optional): IS-IS

Appendix C: Routing Information Protocol
- Introduction to RIP
- RIP Configuration Examples
- Monitoring and Troubleshooting RIP

Session Dates

På anmodning. Kontakt os venligst

Yderligere Information

Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.