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Kronborgsgränd 7, 164 46 Kista

Email: edu.ecs.se@arrow.com
Phone: +46 8 555 188 00

Junos Intermediate Routing (JIR)

CODE:	LENGTH:	PRICE:
JUN_JIR	16 Hours (2 days)	kr21,000.00

Description

This two-day course 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 OS and monitoring device operations.
This course uses Juniper Networks vSRX 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.
This course is based on Junos OS Release 18.2R1.9.
Junos Intermediate Routing (JIR) is an intermediate-level course.

Objectives

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.

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: 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 2
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

Graceful Restart

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

Options

Junos Intermediate Routing is an intermediate-level course.

Further Information

This course can be purchased using Juniper Training Credits - subject to terms and conditions.
Please note that JTCs can only be used against the normal full list price of a course and are not applicable against any discounted rates.

For more information, or to make a booking, please contact us on 0870 251 1000 or email educationteam.ecs.uk@arrow.com

Session Dates

På begäran, kontakta oss

Ytterligare information

Denna utbildning finns också som utbildning på plats. Kontakta oss för mer information.