Systems & Network Training

Junos Intermediate Routing

A 2 day Hands on training course

Save on expenses. This course is also available on your premises.

Description

This 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. Junos Intermediate Routing (JIR) is an intermediate-level course.

Key outcomes

By the end of the course delegates will be able to:

- ✔ Describe typical uses, configure & monitor static, aggregate, and generated routes.
- ✔ Configure and share routes between routing instances.
- ✔ Explain the operations of OSPF.
- ✔ Describe BGP and its basic operations.
- ✔ Configure and monitor GRE and IP-IP tunnels.

Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.

Details

Who will benefit?
Engineers responsible for configuring and monitoring devices running the Junos OS

Prerequisites
Junos Routing Essentials

Duration: 2 days

Overall rating: ★★★★★

Generic Training	Small Class Sizes	Hands On Training	Our Courseware	Customise Your Course
Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".	We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.	The majority of our courses use hands on sessions to reinforce the theory.	We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.	Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.
"*Friendly environment with expert teaching that teaches the why before the how.*" G.C. Fasthosts	*"Excellent course. The small class size was a great benefit..."* M.B. IBM	*"Not many courses have practice added to it. Normally just the theoretical stuff is covered."* J.W. Vodafone	*"Comprehensive materials that made the course easy to follow and will be used as a reference point."* V.B. Rockwell Collins	*"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."* S.R. Qinetiq

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Course Content

Course Introduction

Protocol-Independent Routing
- Static Routes
- Aggregated Routes
- Generated Routes
- Martian Addresses
- Routing Instances

Lab 1: Protocol-Independent Routing

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

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

Border Gateway Protocol
- Overview of BGP
- BGP Attributes
- IBGP Versus EBGP
- Configuring and Monitoring BGP

Lab 4: Border Gateway Protocol

IP Tunneling
- Overview of IP Tunneling
- GRE and IP-IP Tunnels
- Implementing GRE and IP-IP Tunnels

Lab 5: IP Tunnelling

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