Fast Lane

Advanced Junos Service Provider Routing (AJSPR)

ID AJSPR   **Price** CHF 5,250.—(excl. VAT)   **Duration** 5 days

Who should attend

This course benefits individuals responsible for implementing, monitoring, and troubleshooting Layer 3 components of a service provider's network.

This course is part of the following Certifications

Juniper Networks Certified Internet Professional Service Provider Routing & Switching (JNCIP-SP)

Prerequisites

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

Course Objectives

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

- Describe the various OSPF link-state advertisement (LSA) types.
- Explain the flooding of LSAs in an OSPF network.
- Describe the shortest-path-first (SPF) algorithm.
- List key differences between OSPFv2 and OSPFv3.
- Describe OSPF area types and operations.
- Configure various OSPF area types.
- Summarize and restrict routes.
- Identify some scenarios in a service provider network that can be solved using routing policy or specific configuration options.
- Use routing policy and specific configuration options to implement solutions for various scenarios.
- Describe how to troubleshoot OSPF.
- Explain the concepts and operation of IS-IS.
- Describe various IS-IS link-state protocol data unit (LSP) types.
- List IS-IS adjacency rules and troubleshoot common adjacency issues.
- Configure and monitor IS-IS.

- Display and interpret the link-state database (LSDB).
- Perform advanced IS-IS configuration options.
- Implement IS-IS routing policy.
- Explain the default operation in multiarea IS-IS.
- Describe IS-IS address summarization methods.
- Configure and monitor a multiarea IS-IS network.
- Describe how to troubleshoot IS-IS.
- Describe basic BGP operation.
- List common BGP attributes.
- Explain the route selection process for BGP.
- Describe how to alter the route selection process.
- Configure some advanced options for BGP peers.
- Describe various BGP attributes in detail and explain the operation of those attributes.
- Manipulate BGP attributes using routing policy.
- Explain the causes for route instability.
- Describe the effect of damping on BGP routing.
- Explain the default behavior of damping on links.
- Control damping using routing policy.
- View damped routes using command-line interface (CLI) commands.
- Describe the operation of BGP route reflection.
- Configure a route reflector.
- Describe the operation of a BGP confederation.
- Configure confederations.
- Describe peering relationships in a confederation.
- Describe how to troubleshoot BGP.
- Describe how to troubleshoot routing policy.

Course Content

- Course Introduction
- OSPF
- OSPF Areas
- OSPF Case Studies and Solutions
- Troubleshooting OSPF
- IS-IS
- Advanced IS-IS Operations and Configuration Options
- Multilevel IS-IS Networks
- Troubleshooting IS-IS
- BGP
- BGP Attributes and Policy—Part 1
- BGP Attributes and Policy—Part 2
- Route Reflection and Confederations
- BGP Route Damping
- Troubleshooting BGP

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- Troubleshooting Policy

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Training Centres worldwide

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