

# Advanced Junos Service Provider Routing

AJSPR



**Delivery Type:** Classroom

**Duration:** 4 days

## Overview

This four-day course is designed to provide students with detailed coverage of OSPF, IS-IS, BGP, and routing policy. Through demonstrations and hands-on labs, students will gain experience in configuring and monitoring the Junos operating system and in monitoring device and protocol operations.

This course is based on the Junos OS Release 10.4R5.5.

AJSPR is an advanced-level course.

## Pre-Requisites

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), Junos Routing Essentials (JRE), and Junos Intermediate Routing (JIR) courses prior to attending this class.

## 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.
- ✓ 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.

- ✓ Configure confederations.
- ✓ Describe peering relationships in a confederation.
- ✓ Control damping using routing policy.
- ✓ View damped routes using command-line interface (CLI) commands.

### Target Audience

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