

Implementing Juniper Routing Director,

Revision 26A

COURSE OVERVIEW

This four-day, intermediate-level course provides comprehensive training on Juniper® Routing Director (formerly Paragon Automation). The course equips network professionals with the skills required to manage network architecture and perform network administration and optimization using Juniper Routing Director. Students will learn essential Juniper Routing Director capabilities, beginning with fundamental administration tasks and device onboarding procedures.

The course progresses through advanced network management techniques, including dynamic topology acquisition and observability features that provide critical insights into network performance and health. Participants will learn how to leverage Juniper Routing Director's powerful network optimization tools to enhance MPLS efficiency and reliability across their infrastructure. The course also covers orchestration of Layer 2 and Layer 3 VPN services, enabling students to streamline deployment and management of complex network services.

Students will also gain proficiency with Juniper Routing Director Network Planner, allowing them to design and implement network changes with confidence. Additional focus areas include trust management and Active Assurance testing and monitoring capabilities that ensure network security and performance. The course concludes with an exploration of Juniper Routing Director's cutting-edge large language model (LLM) capabilities, preparing students for the future of network management. By the end of this four-day course, participants will possess a comprehensive understanding of Juniper Routing Director's full feature set, enabling them to transform their approach to network architecture, administration, and optimization.

All content is based on Juniper Routing Director 2.5 release.

COURSE LEVEL

Implementing Juniper Routing Director is an intermediate-level course.

AUDIENCE

- Individuals who work with networks and devices that use Juniper Routing Director.
- Individuals who want to learn how to manage network architecture, administration, device onboarding, and network optimization using Juniper Routing Director.
- Individuals who want to gain a comprehensive understanding of network management, including topology acquisition, observability, service orchestration, network planning, trust management, and active testing.

PREREQUISITES

- Basic networking knowledge.
- Basic Junos OS knowledge.
- Understanding of the OSI reference model and the TCP/IP protocol suite.
- Intermediate-level understanding of IP, MPLS, and BGP

RELATED JUNIPER PRODUCTS

Junos OS, MX Series Routers, ACX Series Routers, PTX Series Routers, Juniper Routing Director

OBJECTIVES

- Describe the capabilities of Juniper Routing Director.
- Perform administration tasks using Juniper Routing Director.
- Perform Juniper Routing Director device onboarding.
- Manage network devices using Juniper Routing Director.
- Enable Juniper Routing Director to dynamically acquire the network topology.
- Use Juniper Routing Director Observability.
- Perform MPLS network optimization.
- Orchestrate Layer 2 VPN and Layer 3 VPN services.
- Use Juniper Routing Director Network Planner.
- Manage Juniper Routing Director Network Trust.
- Use Juniper Routing Director Active Assurance.
- Use the Juniper Routing Director LLM Connector.

COURSE CONTENTS

DAY 1

Module 01: Introducing Juniper Routing Director

- Explain the architecture of Juniper Routing Director
- Discuss Juniper Routing Director use cases
- Install Juniper Routing Director

Module 02: Juniper Routing Director—Administration

- Manage organizations and sites
- Examine device inventory and audit logs

Lab 01: SD-WAN with Juniper Mist Quick Start

Module 03: Juniper Routing Director—Device Onboarding

- Describe the device onboarding capabilities of Juniper Routing Director
- Prepare for device onboarding
- Perform device onboarding
- Analyze the results of the device onboarding workflow

Lab 02: Routing Director—Device Onboarding

DAY 2

Module 04: Juniper Routing Director—Device Management

- Perform device management operations
- Perform device configuration management
- Offboard managed devices

Lab 03: Routing Director—Device Management

Module 05: Juniper Routing Director—Observability

- Explain the capabilities of Routing Director Observability
- Examine network events
- Analyze network topology
- Monitor and troubleshoot network devices

Lab 04: Routing Director—Observability

Module 06: Juniper Routing—Dynamic Topology Acquisition

- Explain how Juniper Routing Director dynamically discovers network topology and MPLS LSPs
- Enable dynamic network topology acquisition
- Validate dynamic network topology acquisition

Lab 05: Routing Director—Dynamic Topology Acquisition

DAY 3

Module 07: Juniper Routing Director—Network Optimization

- Explain the Network Optimization use case
- Provision intent-based MPLS LSPs
- Provision individual MPLS LSPs
- Verify MPLS LSP provisioning

Lab 06: Routing Director—Network Optimization

Module 08: Juniper Routing Director—Service Orchestration

- Describe service orchestration components
- Orchestrate VPN services
- Validate service orchestration



Lab 07: Routing Director—Service Orchestration**Module 09: Juniper Routing Director—Network Planner**

- Explain the capabilities of the Routing Director Network Planner
- Create a network model
- Perform exhaustive failure simulation

Lab 08: Routing Director—Network Planner**DAY 4****Module 10: Juniper Routing Director—Network Trust**

- Explain the components of Routing Director Network Trust
- Evaluate network device compliance
- Discover vulnerabilities and monitor integrity

Lab 09: Routing Director—Network Trust**Module 11: Juniper Routing Director—Active Assurance**

- Explain the components of Active Assurance
- Install and register Active Assurance test agents
- Perform Active Assurance testing
- Perform Active Assurance monitoring

Lab 10: Routing Director—Active Assurance**Module 12: Juniper Routing Director—LLM Connector**

- Explain the capabilities of the Routing Director LLM Connector
- Configure the Routing Director LLM Connector
- Use the Routing Director LLM Connector

Lab 11: Using the LLM Connector

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