



This list provides a general view of the skill set required to successfully complete the specified certification exam. Topics listed are subject to change.

Networking Fundamentals

Junos OS Fundamentals

User Interfaces

Junos Configuration Basics

Operational Monitoring and Maintenance

Routing Fundamentals

Routing Policy and Firewall Filters

Networking Fundamentals

Identify the concepts and functionality of various fundamental elements of networking

- Collision domains and broadcast domains
- Function of routers and switches
- Optical network fundamentals – SONET/SDH, OTN
- Ethernet networks
- Layer 2 addressing, including address resolution
- IPv4 and IPv6 fundamentals
- Layer 3 / IP addressing, including subnet masks
- Subnetting and supernetting
- Decimal to binary conversion
- Longest match routing
- Connection-oriented vs. connectionless protocols

Junos OS Fundamentals

Identify the concepts, benefits and functionality of the core elements of the Junos OS

- Junos device portfolio – product families, general functionality
- Software architecture
- Control and forwarding planes
- Routing Engine and Packet Forwarding Engine
- Protocol daemons
- Transit traffic processing
- Exception traffic

▲ To Top

User Interfaces

Identify the concepts, operation and functionality of the Junos user interfaces

- CLI functionality
- CLI modes
- CLI navigation
- CLI Help
- Filtering output
- Active vs. candidate configuration
- Reverting to previous configurations
- Modifying, managing, and saving configuration files
- Viewing, comparing, and loading configuration files
- J-Web – core/common functionality

Junos Configuration Basics

Identify the main elements for configuring Junos devices

- Factory-default state
- Initial configuration
- User accounts
- Login classes

- User authentication methods
- Interface types and properties
- Configuration groups
- Additional initial configuration elements – NTP, SNMP, syslog, etc.
- Configuration archival
- Logging and tracing
- Rescue configuration

Describe how to configure basic components of a Junos device

[▲ To Top](#)

Operational Monitoring and Maintenance

Identify methods of monitoring and maintaining Junos devices

- Show commands
- Monitor commands
- Interface statistics and errors
- Network tools – ping, traceroute, telnet, SSH, etc.
- Real-time performance monitoring (RPM)
- Junos OS installation
- Software upgrades
- Powering on and shutting down Junos devices
- Root password recovery

Describe monitoring and maintenance procedures for a Junos device

Routing Fundamentals

Identify basic routing concepts and functionality for Junos devices

- Packet forwarding concepts
- Routing tables
- Routing vs. forwarding tables
- Route preference
- Routing instances
- Static routing
- Advantages of / use cases for dynamic routing protocols

Describe how to configure and monitor basic routing elements for a Junos device

Routing Policy and Firewall Filters

Identify the concepts and functionality of routing policy and firewall filters on Junos devices

- Default routing policies
- Import and export policies
- Routing policy flow
- Effect of policies on routes and routing tables
- Policy structure and terms
- Policy match criteria, match types, and actions
- Firewall filter concepts
- Firewall filter concepts
- Filter match criteria and actions
- Effect of filters on packets
- Unicast reverse-path-forwarding (RPF)

Describe how to configure and monitor routing policies and firewall filters on a Junos device

[▲ To Top](#)