Juniper Networks Certified Associate
JNCIA-Junos (Exam: JN0-102)

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

Course Content

❖ 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

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

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

Contact Us

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