NetTech India

JNCIS-ENT Exam Objectives (Exam: JN0-343)

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

Layer 2 Switching and VLANs

- Identify the concepts, operation, and functionality of Layer 2 switching for the Junos OS
  - Enterprise switching platforms
  - Bridging components
  - Frame processing
- Identify the concepts, benefits, and functionality of VLANs
  - Ports
  - Tagging
  - Native VLANs and voice VLANs
  - Inter-VLAN routing
- Demonstrate knowledge of how to configure, monitor and troubleshoot Layer 2 switching and VLANs
  - Interfaces and ports
  - VLANs
  - Routed VLAN interfaces (RVI)

Spanning Tree

- Identify the concepts, benefits, operation, and functionality of the Spanning Tree Protocol
  - STP and RSTP concepts
  - Port roles and states
  - BPDUs
  - Convergence and reconvergence
- Demonstrate knowledge of how to configure and monitor STP and RSTP
  - STP
  - RSTP

Layer 2 Security

- Identify the concepts, benefits and operation of various protection and security features
  - BPDU, loop and root protection

- Port security, including MAC limiting, DHCP snooping, Dynamic ARP inspection (DAI) and IP source guard
- Storm control

• Identify the concepts, benefits and operation of Layer 2 firewall filtres

- Filter types
- Processing order
- Match criteria and actions

• Demonstrate knowledge of how to configure and monitor Layer 2 security

- Protection
- Port security
- Storm control
- Firewall filter configuration and application

Protocol Independent Routing

• Identify the concepts, operation and functionality of various protocol-independent routing components

- Static, aggregate, and generated routes
- Martian addresses
- Routing instances, including RIB groups
- Load balancing
- Filter-based forwarding

• Demonstrate knowledge of how to configure and monitor various protocol-independent routing components

- Static, aggregate, and generated routes
- Load balancing
- Filter-based forwarding

Open Shortest Path First (OSPF)

• Identify the concepts, operation and functionality of OSPF

- Link-state database
- OSPF packet types
- Router ID
- Adjacencies and neighbors
- Designated router (DR) and backup designated router (BDR)
- OSPF area and router types
- LSA packet types

• Demonstrate knowledge of how to configure, monitor and troubleshoot OSPF

- Areas, interfaces and neighbors
- Additional basic options
- Routing policy application
- Troubleshooting tools

NetTech India

Intermediate System to Intermediate System (IS-IS)

- Identify the concepts, operation and functionality of IS-IS
  - Link-state database
  - IS-IS PDUs
  - TLVs
  - Adjacencies and neighbors
  - Levels and areas
  - Designated intermediate system (DIS)
  - Metrics
- Demonstrate knowledge of how to configure, monitor and troubleshoot IS-IS
  - Levels, interfaces and adjacencies
  - Additional basic options
  - Routing policy application
  - Troubleshooting tools

Border Gateway Protocol (BGP)

- Identify the concepts, operation and functionality of BGP
  - BGP basic operation
  - BGP message types
  - Attributes
  - Route/path selection process
  - IBGP and EBGP functionality and interaction
- Demonstrate knowledge of how to configure and monitor BGP
  - Groups and peers
  - Additional basic options
  - Routing policy application

Tunnels

- Identify the concepts, requirements and functionality of IP tunneling
  - Tunneling applications and considerations
  - GRE
  - IP-IP
- Demonstrate knowledge of how to configure and monitor IP tunnels
  - GRE
  - IP-IP

High Availability

- Identify the concepts, benefits, applications and requirements for high availability in a Junos OS environment
  - Link aggregation groups (LAG)
  - Redundant trunk groups (RTG)
  - Virtual Chassis
  - Graceful restart (GR)
  - Graceful Routing Engine switchover (GRES)
  - Nonstop active routing (NSR)
  - Nonstop bridging (NSB)
  - Bidirectional Forwarding Detection (BFD)
  - Virtual Router Redundancy Protocol (VRRP)
  - Unified In-Service Software Upgrade (ISSU)
- Demonstrate knowledge of how to configure and monitor high availability components
  - LAG and RTG
  - Virtual Chassis
  - GR, GRES, NSR, and NSB
  - VRRP
  - ISSU