NetTech India

JNCIE-SP Exam Objectives (Exam: JPR-960)

This list is intended to provide a general view of the skill sets required to successfully complete the JNCIE-SP exam. Topics listed are subject to change.

Device Infrastructure

- High Availability
- Aggregated Ethernet, including fault detection
- Graceful Restart
- Graceful Routing Engine switchover
- Nonstop Routing
- VRRP
- Automation Implementation
- Scripts (OP/event/commit)
- Archival
- Secure and Monitor Junos Devices
- Radius and local user accounts
- Firewall filtering
- Unicast reverse-path-forwarding
- Syslog

IGP

- Troubleshooting
- Neighbor establishment
- Routing loops
- MTU mismatch
- Authentication
- Router IDs
- IGP timers
- Implementing
- Configuration of IGPs (IS-IS and OSPF)
- Router advertisement
- Routing policy
- IPv4 and IPv6 support
- BFD
- Loop-free alternate routes

- Load balancing
- Optimize timers
- CSPF support

MPLS

- Signaling protocols
- RSVP
- LDP tunneling
- LDP IGP tracking
- LDP policies
- BFD
- Path selection
- Admin groups
- Defining EROs
- Bypass LSPs
- Detour LSPs
- Features
- Load balancing
- LSP selection using policy
- Routing table manipulation
- Optimization and auto bandwidth
- TTL handling

BGP

- Routing Policy
- Communities
- IPv4 and IPv6
- 4-byte ASN
- Load balancing
- Remote-triggered black holes
- Implementation
- IBGP and EBGP
- IPv4 and IPv6 peering communities
- IPv6 tunneling
- Authentication
- 4-byte ASN
- BFD
- Scaling
- Route reflection with IPv4, IPv6, and VPNs
- Inet.3 and inet.6.3 route resolution

NetTech India

VPNs

- Layer 3 VPNs
- Hub and spoke
- Multi-homed
- IPv4 and IPv6
- Internet access
- Source of Origin
- PE-CE Protocols (BGP, OSPF, RIP, or Static)
- 6PE
- Auto export, RIB groups
- Label-switched interface
- AS override
- Layer 2 VPNs
- VPLS (BGP and LDP)
- VPLS multi-homing
- Martini and Kompella
- VPLS with a point-to-multipoint LSP
- IRB
- IGMP snooping for VPLS
- Spanning tree for VPLS
- VLAN normalization (push, pop, or swap)
- Firewall filtering
- Inter-AS VPNs
- Interprovider
- Carrier-of-carriers

Multicast

- Implementation
- Draft-rosen and NG MVPN
- PIM sparse mode
- Multicast scoping
- MSDP
- RP redundancy

CoS

- Implementation
- BA and MF classifiers

- Rewrite rules
- Drop profiles
- Policers
- Schedulers