

Implementing Cisco IP Switched Networks (300-115)

Exam Description:

Implementing Cisco IP Switched Networks (SWITCH 300-115) is a 120-minute qualifying exam with 45–55 questions for the Cisco CCNP and CCDP certifications. The SWITCH 300-115 exam certifies the switching knowledge and skills of successful candidates. They are certified in planning, configuring, and verifying the implementation of complex enterprise switching solutions that use the Cisco Enterprise Campus Architecture.

The SWITCH exam also covers highly secure integration of VLANs and WLANs.

The following topics are general guidelines for the content that is likely to be included on the exam. However, other related topics may also appear on any specific version of the exam. To better reflect the contents of the exam and for clarity, the following guidelines may change at any time without notice.

1.0 Layer 2 Technologies

- 1.1 Configure and verify switch administration
 - 1.1.a SDM templates
 - 1.1.b Managing MAC address table
 - 1.1.c Troubleshoot Err-disable recovery
- 1.2 Configure and verify Layer 2 protocols
 - 1.2.a CDP, LLDP
 - 1.2.b UDLD
- 1.3 Configure and verify VLANs
 - 1.3.a Access ports
 - 1.3.b VLAN database
 - 1.3.c Normal, extended VLAN, voice VLAN
- 1.4 Configure and verify trunking
 - 1.4.a VTPv1, VTPv2, VTPv3, VTP pruning
 - 1.4.b dot1Q
 - 1.4.c Native VLAN
 - 1.4.d Manual pruning
- 1.5 Configure and verify EtherChannels
 - 1.5.a LACP, PAgP, manual

- 1.5.b Layer 2, Layer 3
- 1.5.c Load balancing
- 1.5.d EtherChannel misconfiguration guard
- 1.6 Configure and verify spanning tree
 - 1.6.a PVST+, RPVST+, MST
 - 1.6.b Switch priority, port priority, path cost, STP timers
 - 1.6.c PortFast, BPDUguard, BPDUfilter
 - 1.6.d Loopguard and Rootguard
- 1.7 Configure and verify other LAN switching technologies
 - 1.7.a SPAN, RSPAN
- 1.8 Describe chassis virtualization and aggregation technologies
 - 1.8.a Stackwise

2.0 Infrastructure Security

- 2.1 Configure and verify switch security features
 - 2.1.a DHCP snooping
 - 2.1.b IP Source Guard
 - 2.1.c Dynamic ARP inspection
 - 2.1.d Port security
 - 2.1.e Private VLAN
 - 2.1.f Storm control
- 2.2 Describe device security using Cisco IOS AAA with TACACS+ and RADIUS
 - 2.2.a AAA with TACACS+ and RADIUS
 - 2.2.b Local privilege authorization fallback

3.0 Infrastructure Services

- 3.1 Configure and verify first-hop redundancy protocols
 - 3.1.a HSRP
 - 3.1.b VRRP
 - 3.1.c GLBP

Ch. No.	CCNP Switching Practical's
1	Understanding CAM, TCAM
2	Configuring Switch Database Management(SDM) Templates
3	Configuring CDP & LLDP
4	VLAN 4.1 Creating VLANs with Cisco Best Practices 4.2 Configuring VLAN Trunking with Cisco Best Practices 4.3 Configuring VTP with Cisco Best Practices
5	Inter VLAN Routing 5.1 Configuring Basic Inter VLAN Routing 5.2 Configuring Router on a Stick 5.3 Configuring Using Multi-Layer Switch
6	Configuring Private VLAN
7	Configuring VLAN ACLs
8	Gateway Load Balancing using L3 Switch 8.1 Configuring Hot Standby Routing Protocol(HSRP) 8.2 Configuring Virtual Router Redundancy Protocol(VRRP) 8.3 Configuring Gateway Load Balancing Protocol(GLBP)

9	Process Switching, Fast Switching, CEF & Distributed CEF
10	Spanning Tree Protocol (STP) 10.1 Enhancements in traditional STP 10.2 Configuring PortFast 10.3 Configuring Uplink Fast 10.4 Configuring Backbone Fast 10.5 Configuring Rapid PVST 10.6 Configuring RSTP 10.7 Configuring MST
11	STP Security 11.1 Configuring Root Guard 11.2 Configuring Loop Guard 11.3 Configuring BPDU Guard 11.4 Configuring BPDU Filter 11.5 Configuring UDLD
12	Virtual Trunking Protocol 3 (VTP3) 12.1 Configuring VTPv3 for VLANs 12.2 Configuring VTPv3 for MST
13	Etherchannel 13.1 Configuring Basic Etherchannel 13.2 Configuring Etherchannel for Different VLANs 13.3 Configuring Etherchannel as Trunk Link 13.4 Configuring L3 Etherchannel 13.5 Etherchannel Load Balancing

14	Switch Security 14.1 Configuring Switch Port Security 14.2 Configuring DHCP Snooping 14.3 Configuring IP Source Guard 14.4 Configuring Dynamic ARP Inspection 14.5 Configuring Secure Storm Control
15	Configuring Network Time Protocol (NTP)
16	Network Management Tools 16.1 Simple Network Management Protocol (SNMP) 16.2 Configuring SNMP v3 16.3 Configuring SysLog 16.4 Configuring NetFlow 16.5 Configuring SPAN and RSPAN
17	Configuring Power over Ethernet
18	Switch Stacking