

NETLOGIC TRAINING CENTER

Course Training

CCNP Implement Cisco IP Switch Networks – CCNP Switching (300-115 SWITCH) version 2.0

Course Content

SWITCH v2.0, 5 day ILT, includes major updates and follows an updated blueprint. However, note that this course does not cover all items listed on the blueprint. Some older topics have been removed or simplified, while several new IPv6 routing topics have been added. Course content has been adapted to Cisco IOS Software Release 15 and technically updated. Course also introduces new type of labs, called discovery labs. Discovery labs are instructor guided lab through which student explores new topics in an interactive way. All labs are developed only as virtual labs. To get the full course experience, you should cover everything, including Introduction, Discovery labs, Summary, and Module Self-Check.

Course Objective

Upon completing this course, the learner will be able to meet these overall objectives:

- Describe the hierarchical campus structure, basic switch operation, use of SDM templates, PoE, and LLDP
- Implement VLANs, trunks, explain VTP, implement DHCP in IPv4 and IPv6 environment, and configure port aggregation
- Implement and optimize STP mechanism that best suits your network - PVSTP+, RPVSTP+, or MSTP
- Configure routing on a multilayer switch
- Configure NTP, SNMP, IP SLA, port mirroring, and verify StackWise and VSS operation
- Implement First Hop redundancy in IPv4 and IPv6 environments
- Secure campus network according to recommended practice

Course Prerequisite

The knowledge and skills that a learner must have before attending this Curriculum are as follows:

- Describing network fundamentals
- Establishing Internet and WAN connectivity (IPv4 and IPv6)
- Managing network device security
- Operating a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshooting IP connectivity (IPv4 and IPv6)
- Configuring and troubleshooting EIGRP and OSPF (IPv4 and IPv6)
- Configuring devices for SNMP, Syslog, and NetFlow access
- Managing Cisco device configurations, Cisco IOS images, and licenses
- It is highly recommended that this course be taken after the following Cisco courses:
 - Interconnecting Cisco Networking Devices v2.0, Part 1 (ICND1 v2.0) and Part 2 (ICND2 v2.0)
 - Interconnecting Cisco Networking Devices: Accelerated version 2.0 (CCNAX v2.0)

Course Pre-Test

Not Required

Course Details

Day 1

Item	Subject	Details	Personal Lab and devices	Workgroup Lab and devices
1	Layer 2 Technologies	<ul style="list-style-type: none"> Configure and verify switch administration <ol style="list-style-type: none"> SDM templates Managing MAC address table Troubleshoot Err-disable recovery 1.2 Configure and verify Layer 2 protocols <ol style="list-style-type: none"> CDP, LLDP UDLD 	Theory and Lecture	
Break				
		<ul style="list-style-type: none"> Configure and verify VLANs <ol style="list-style-type: none"> Access ports VLAN database Normal, extended VLAN, voice VLAN Configure and verify trunking <ol style="list-style-type: none"> VTPv1, VTPv2, VTPv3, VTP pruning dot1Q Native VLAN Manual pruning 	Theory and Lecture	
	Summary challenge advance lab for VLAN , VTP and UDLD	<p>Lab 1 - factory default network device for new configuration</p> <p>Lab 2 - configuration VLAN, VTP and verifying VLAN, VTP operation</p> <p>Lab 3 - configuration UDLD on various media and verifying UDLD operation</p>	(Lab 1) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit	(Lab 2 and Lab 3) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit

Day 2

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
		<ul style="list-style-type: none"> Configure and verify EtherChannels <ol style="list-style-type: none"> LACP, PAgP, manual Layer 2, Layer 3 Load balancing EtherChannel misconfiguration guard 	Theory and Lecture	
Break				
		<ul style="list-style-type: none"> Configure and verify spanning tree <ol style="list-style-type: none"> PVST+, RPVST+, MST Switch priority, port priority, path cost, STP timers PortFast, BPDUguard, BPDUfilter Loopguard and Rootguard Configure and verify other LAN switching technologies <ol style="list-style-type: none"> SPAN, RSPAN Describe chassis virtualization and aggregation technologies <ol style="list-style-type: none"> Stackwise 	Theory and Lecture	
	Summary challenge advance lap for RPVST+, MST and SPAN, RSPAN feature	Lab 1 - configuration RPVST+ and verifying RPVST+ operation Lab 2 - configuration SPAN, RSPAN and verifying operation Lab 3 - configuration MST and verifying MST operation	(Lab 1,2 and Lab 3) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit	(Lab 1,2 and Lab 3) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit

Day 3

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
		<ul style="list-style-type: none"> Configure and verify other LAN switching technologies <ul style="list-style-type: none"> a SPAN, RSPAN Describe chassis virtualization and aggregation technologies <ul style="list-style-type: none"> a Stackwise 	Theory and Lecture	
Break				
2	Infrastructure Security	<ul style="list-style-type: none"> Configure and verify switch security features <ul style="list-style-type: none"> a DHCP snooping b IP Source Guard c Dynamic ARP inspection d Port security e Private VLAN f Storm control 	Theory and Lecture	
	Summary challenge advance lap for PVLAN, Port security and RBAC	Lab 1 - configuration Private VLAN and verifying PVLAN operation Lab 2 - configuration Port security and error disable management	(Lab 2 and Lab 3) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit	(Lab 1) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit

Day 4

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
		<ul style="list-style-type: none">Describe device security using Cisco IOS AAA with TACACS+ and RADIUS<ul style="list-style-type: none">a AAA with TACACS+ and RADIUSb Local privilege authorization fallback	Theory and Lecture	
Break				
		<ul style="list-style-type: none">Describe Netflow and Netflow Lite featureReal solution for Netflow usage	Theory and Lecture	
	Summary challenge advance lap for Netflow and RBAC	Lab 1 - configuration NetFlow Lite and verifying NetFlow Lite operation Lab 2 - configuration Roll-Base Access Control (RBAC) and verifying RBAC operation	(Lab 1 and Lab 2) Real Device ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit	

Day 5

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
3	Infrastructure Services	<ul style="list-style-type: none">Configure and verify first-hop redundancy protocols<ul style="list-style-type: none">a HSRPb VRRPc GLBP	Theory and Lecture	
		Break		
		<ul style="list-style-type: none">Configure and verify Server Load Balance (IP SLB)Real Solution for Server Load Balance usage	Theory and Lecture	
	Summary challenge advance lap for HSRP, GLBP and IP SLB	Lab 1 - configuration HSRP and verifying HSRP operation Lab 2 - configuration HSRP and verifying GLBP operation Lab 3 - configuration Server Load Balance and verifying Server Load Balance	(Lab 1,2 and Lab 3) Real Device ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit	(Lab 1,2 and Lab 3) Real Device ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560-CX 1 Unit

Course Post-Test

Not Required

Course Materials

Not include in this class training (but you can requested from sale team)

Course Devices Training (Per 1 Person)



Cisco Router ISR 4321



Cisco Catalyst 3560-CX



Cisco Catalyst 2960



