



CCNP Switch

Cisco<

Implementing Cisco Switched Networks

36 Hours

Course Overview

Cisco Certified Network Professional (CCNP) Routing and Switching certification validates the ability to plan, implement, verify and troubleshoot local and wide-area enterprise networks and work collaboratively with specialists on advanced security, voice, wireless and video solutions. The CCNP Routing and Switching certification is appropriate for those with at least one year of networking experience who are ready to advance their skills and work independently on complex network solutions. Those who achieve CCNP Routing and Switching have demonstrated the skills required in enterprise roles such as network engineer, support engineer, systems engineer or network technician. The routing and switching protocol knowledge from this certification will provide a lasting foundation as these skills are equally relevant in the physical networks of today and the virtualized network functions of tomorrow.

Course Objectives

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 practices



Prerequisites:

Valid CCNA certification or any CCIE Certification can act as a pre-requisite.

Exam Info

Exam No. 300-115

Implementing Cisco IP Switched Networks (SWITCH 300-115) is a qualifying exam for the Cisco CCNP Routing and Switching 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.

Course Outline

Chapter 1 Enterprise Campus Network Design

Chapter 2 Switch Operation

Chapter 3 Switch Port Configuration

Chapter 4 VLANs and Trunks

Chapter 5 VLAN Trunking Protocol

Chapter 6 Traditional Spanning Tree Protocol

Chapter 7 Spanning-Tree Configuration

Chapter 8 Protecting the Spanning Tree Protocol Topology

Chapter 9 Advanced Spanning Tree Protocol

Chapter 10 Aggregating Switch Links

Chapter 11 Multilayer Switching

Chapter 12 Configuring DHCP

Chapter 13 Logging Switch Activity

Chapter 14 Managing Switches with SNMP

Chapter 15 Monitoring Performance with IP SLA



Chapter 16 Using Port Mirroring to Monitor Traffic

Chapter 17 Understanding High Availability

Chapter 18 Layer 3 High Availability

Chapter 19 Securing Switch Access

Chapter 20 Securing VLANs

Chapter 21 Preventing Spoofing Attacks

Chapter 22 Managing Switch Users

Chapter 23 Final Preparation

