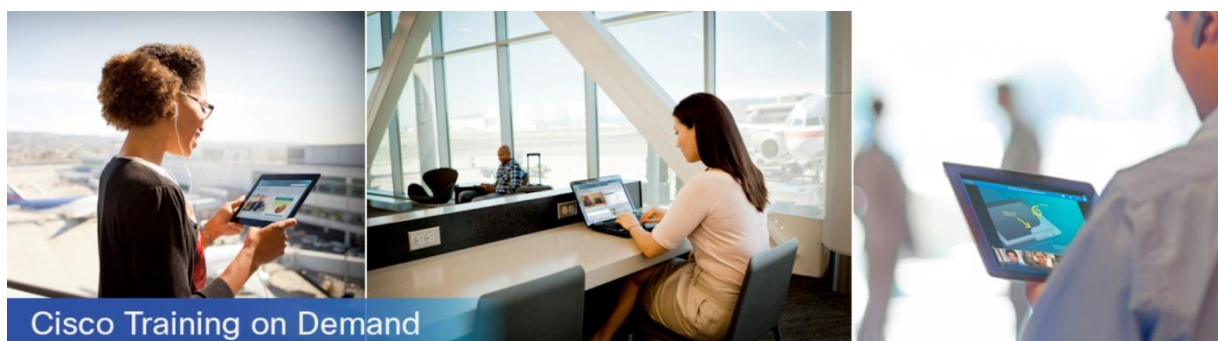


Learning Services

Cisco Training on Demand

Interconnecting Cisco Networking Devices, Part 2 (ICND2)



Overview

Interconnecting Cisco Networking Devices Part 2 (ICND2) Version 3.0 is a Cisco Training on Demand course. It provides you with an understanding of LAN switching technologies, IPv4 and IPv6 routing technologies, WAN technologies, network infrastructure services such as Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and quality of service (QoS), as well as network infrastructure maintenance including programmable networks. You also gain an understanding of network fundamentals, basic routing technologies, and infrastructure management of network devices.

Interested in purchasing this course in volume at discounts for your company? Contact ctod-sales@cisco.com.

Duration

The ICND2 v3.0 Training on Demand course is a self-paced course based on the 5-day instructor-led training version. It consists of 24 sections of consumable segments of instructor video and text totaling more than 7 hours of instruction, along with interactive activities, 46 hands-on lab exercises, content review questions, and challenge questions.

Target Audience

The primary audiences for this course are those preparing for the 200-105 ICND2 exam and individuals seeking the Cisco CCNA[®] Routing and Switching certification.

Objectives

After completing this course, you should be able to:

- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshoot IP connectivity
- Describe how to configure and troubleshoot Enhanced Interior Gateway Routing Protocol (EIGRP) in an IPv4 environment and configure EIGRP for IPv6
- Configure and troubleshoot Open Shortest Path First (OSPF) Protocol in an IPv4 environment and configure OSPF for IPv6
- Define characteristics, functions, and components of a WAN
- Describe how device management can be implemented using the traditional and intelligent ways

Course Prerequisites

The knowledge and skills recommended before attending this course are:

- Understand Network Fundamentals
- Implement Local Area Networks
- Implement Internet Connectivity
- Manage Network Device Security
- Implement WAN Connectivity
- Implement Basic IPv6 Connectivity

Course Outline

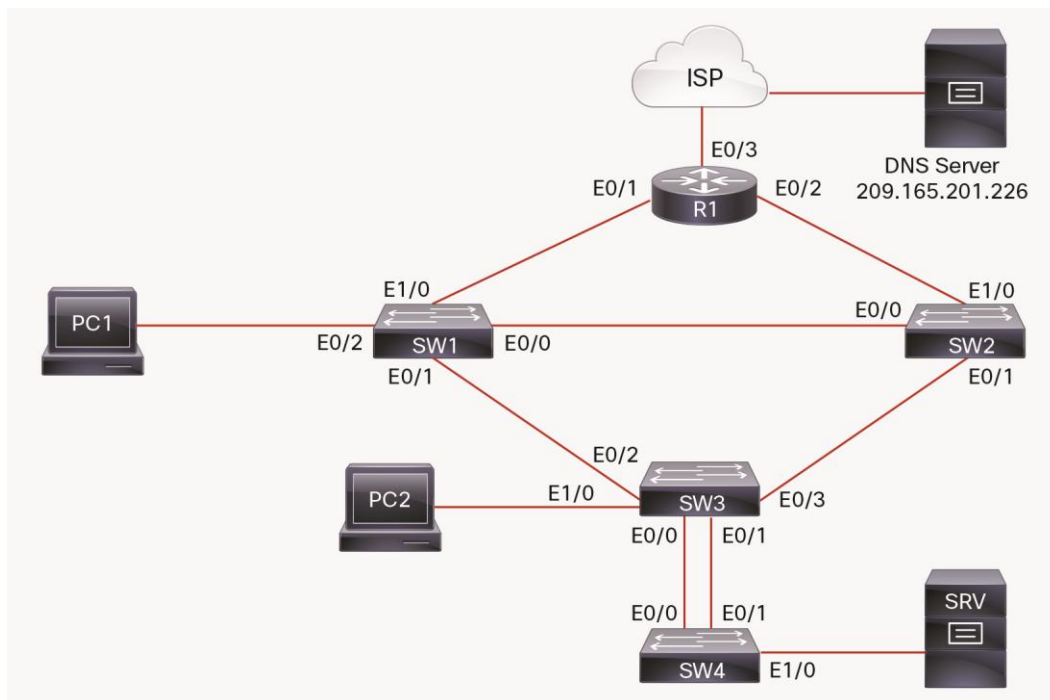
- Course Introduction
- Section 1: Troubleshooting VLAN Connectivity
- Section 2: Building Redundant Switched Topologies
- Section 3: Improving Redundant Switched Topologies with EtherChannel
- Section 4: Understanding Layer 3 Redundancy
- Section 5: Troubleshooting IPv4 Network Connectivity
- Section 6: Troubleshooting IPv6 Network Connectivity
- Section 7: Implementing EIGRP
- Section 8: Implementing EIGRP for IPv6
- Section 9: Troubleshooting EIGRP
- Section 10: Implementing and Troubleshooting Scalable Medium-Sized Network -1
- Section 11: Implementing and Troubleshooting Scalable Medium-Sized Network -2
- Section 12: Understanding OSPF
- Section 13: Implementing Multiarea OSPF IPv4
- Section 14: Implementing OSPFv3 for IPv6
- Section 15: Troubleshooting Multiarea OSPF
- Section 16: Understanding WAN Technologies

- Section 17: Understanding Point-to-Point Protocols
- Section 18: Configuring GRE Tunnels
- Section 19: Configuring Single-Homed EBGP
- Section 20: Implementing Basic Network Device Management and Security
- Section 21: Evolution of Intelligent Networks
- Section 22: Introducing QoS
- Section 23: Implementing and Troubleshooting Scalable Multiarea Network -1
- Section 24: Implementing and Troubleshooting Scalable Multiarea Network -2

Labs Outline

This course contains 45 hands-on lab exercises.

Figure 1. Topology for All Labs in Interconnecting Cisco Networking Devices, Part 2



The labs included in this course are:

- Discovery Lab 1.6: Troubleshoot VLANs and Trunks
- Challenge Lab 1.7: Troubleshooting VLANs and Trunks
- Discovery Lab 2.11: Configure Root Bridge and Analyze STP Topology
- Discovery Lab 2.14: Troubleshoot STP Issues
- Challenge Lab 2.15: Building Redundant Switched Topologies
- Discovery Lab 3.4: Configure and Verify EtherChannel
- Challenge Lab 3.5: Improving Redundant Switched Topologies with EtherChannel
- Discovery Lab 4.5: Configure and Verify HSRP

- Discovery Lab 4.6: Troubleshoot HSRP
- Challenge Lab 4.7: Implementing and Troubleshooting HSRP
- Discovery Lab 5.3: Use Troubleshooting Tools
- Discovery Lab 5.7: Configure SPAN
- Discovery Lab 5.10: Configure and Verify IPv4 Extended Access Lists
- Discovery Lab 5.12: Troubleshoot IPv4 Network Connectivity
- Challenge Lab 5.13: Troubleshooting IPv4 Connectivity
- Discovery Lab 6.8: Configure and Verify IPv6 Extended Access Lists
- Discovery Lab 6.10: Troubleshoot IPv6 Network Connectivity
- Challenge Lab 6.11: Troubleshooting IPv6 Connectivity
- Discovery Lab 7.7: Configure and Verify EIGRP
- Challenge Lab 7.9: Implementing EIGRP
- Discovery Lab 8.3: Configure and Verify EIGRP for IPv6
- Discovery Lab 9.6: Troubleshoot EIGRP
- Challenge Lab 9.7: Troubleshooting EIGRP
- Challenge Lab 10.2: Summary Challenge Lab: 1
- Challenge Lab 11.2: Summary Challenge Lab: 2
- Discovery Lab 12.10: Configure and Verify Single-Area OSPF
- Discovery Lab 13.4: Configure and Verify Multiarea OSPF
- Challenge Lab 13.5: Implementing Multiarea OSPF
- Discovery Lab 14.3: Configure and Verify OSPFv3
- Challenge Lab 14.4: Implementing OSPFv3 for IPv6
- Discovery Lab 15.7: Troubleshoot Multiarea OSPF
- Challenge Lab 15.8: Troubleshooting OSPF
- Discovery Lab 17.4: Configure Serial Interface and PPP
- Discovery Lab 17.5: Configure and Verify MLP
- Discovery Lab 17.6: Configure and Verify PPPoE Client
- Challenge Lab 17.7: Implementing WAN Using Point-to-Point Protocols
- Discovery Lab 18.3: Configure and Verify GRE Tunnel
- Challenge Lab 18.4: Implementing GRE Tunnel
- Discovery Lab 19.4: Configure and Verify Single Homed EBGp
- Challenge Lab 19.5: Implementing Single-Homed EBGp
- Discovery Lab 20.4: Configure External Authentication using RADIUS and TACACS+
- Discovery Lab 20.6: Configure SNMP
- Challenge Lab 20.7: Implementing Device Management and Security
- Discovery Lab 21.7: EAI Explore APIC-EM Graphical User Interface
- Challenge Lab 23.2: Summary Challenge Lab: 3
- Challenge Lab 24.2: Summary Challenge Lab: 4

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