Learning Services

Cisco Training on Demand

LAN Switching Bootcamp

Overview

The LAN Switching Bootcamp Cisco[®] Training on Demand course is part of the Cisco Technical Assistance Center (TAC) curriculum. The course begins with an in-depth look at Layer 2 basics, such as Ethernet, and then highlights the main aspects of Layer 2 and Layer 3 switching technologies and capabilities. Some of the topics covered in this course are VLANs, trunking and EtherChannels, Spanning Tree Protocol (STP), and a brief discussion about multicast and private VLANs (PVLANs). This Cisco Training on Demand course is a blend of video, course materials, and hands-on lab exercises.

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

Duration

The LAN Switching Bootcamp Training on Demand course consists of 7 modules and 35 video lessons, totaling 9 hours of video, along with 5 hands-on lab exercises.

Target Audience

This course is designed for:

- Users who want to better understand Layer 2 switching, IP multicast, and PVLANs
- People who design, deploy, or troubleshoot Layer 2 switching functionality in devices based on Cisco IOS[®] technology

Objectives

After completing this course, you should be able to:

- Configure and test autonegotiation

- Configure and test 10, 100, and 1000 Ethernet ports

- Configure and test bridging and switching

- Configure and test VLANs

- Configure and test trunking, Dynamic Trunking Protocol (DTP), and VLAN Trunking Protocol (VTP)

- Configure and test various switching features by using Cisco IOS Software

- Describe STP basics

- Configure and verify STP

- Configure and test various STP features, such as UplinkFast, PortFast, and BackboneFast

- Identify how Rapid STP (RSTP) and Multiple STP (MSTP) differ from the standard functionality of IEEE 802.1D STP

- Describe how multicast is treated by switches and routers

- Describe Internet Group Management Protocol (IGMP)

- Describe how the IGMP snooping feature works

Course Prerequisites

Before taking this course, you should have working knowledge and skills about the following:

- Thorough understanding of network fundamentals and the ability to construct simple LANs

- Ability to establish Internet connectivity

- Basic working knowledge of managing network device security

- Ability to describe IPv6 basics

- Basic working knowledge of troubleshooting VLAN issues, providing details on how ISO 10303, the Standard for the Exchange of Product model data (STEP), works, configuring EtherChannel, and a thorough understanding of the idea behind Layer 3 redundancy

- Practical experience in troubleshooting IP connectivity

- Practical knowledge of the characteristics, functions, and components of a WAN configuration, troubleshooting an Enhanced Interior Gateway Routing Protocol (EIGRP) in an IPv4 environment, and configuring EIGRP for IP Version 4 (IPv6)

- Ability to configure, verify, and troubleshoot multi-area Open Shortest Path First (OSPF)

- Thorough understanding of Simple Network Management Protocol (SNMP), System Logging (SYSLOG), NetFlow, and the management of Cisco device configurations, Cisco IOS images, and licenses

Course Outline

- Module 1: Foundational Concepts
- Module 2: VLAN, Trunking and EtherChannels
- Module 3: Spanning Tree Protocol
- Module 4: Spanning Tree Protocol Enhancements
- Module 5: LAN Switching Protocols and Features
- Module 6: Layer 2 Multicast
- Module 7: Security

Labs Outline

This course contains five hands-on virtual lab exercises, powered by Cisco Learning Labs and Cisco IOS Software on Linux (IOL). The topology for all labs is shown in Figure 1.

Figure 1. Topology for All Labs in LAN Switching Bootcamp Course
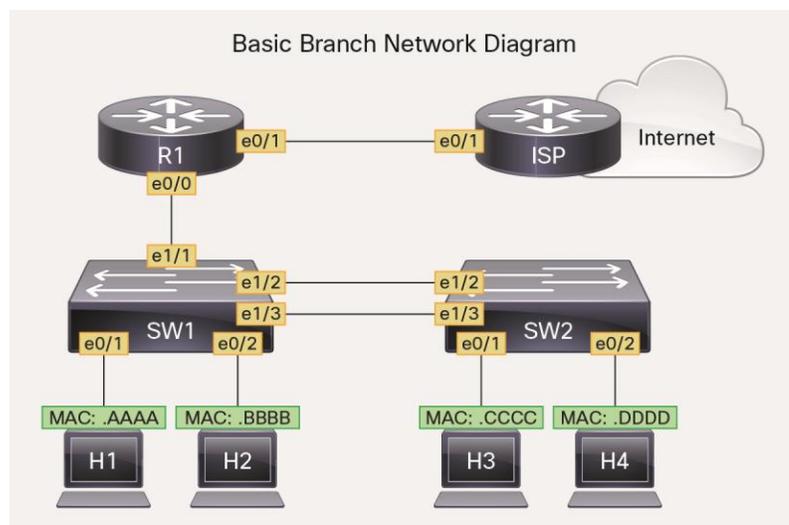
The labs included in this course are:

- Lab 1: Basic STP Lab
- Lab 2: VTPv3–EtherChannel Lab
- Lab 3: Advanced STP Lab
- Lab 4: VLAN Lab
- Lab 5: Final Lab

Instructor: Charles Stizza

Charles Stizza is currently a member of the Data Center Switching TAC team. With more than 15 years of IT experience, his expertise extends to a variety of technologies, including Layer 3 routing, data center, and virtualization. When not teaching or supporting Cisco customers, Stizza spends time mentoring professionals and helping them realize their potential.

Supported Configurations

Cisco Training on Demand videos are supported on PCs, Macs, and tablets using one of the following browsers, or later: Mozilla Firefox 30, Google Chrome 35, and Apple Safari 6. The labs are supported on PCs and Macs but not on tablets.

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