Learning Services

Cisco Training on Demand

Introduction to IP Multicast Bootcamp

Overview
The Introduction to IP Multicast Bootcamp Cisco® Training on Demand course is part of the Cisco Technical Assistance Center (TAC) curriculum. This course discusses Internet Group Management Protocol (IGMP), which is used to enable IP multicast, and Protocol Independent Multicast (PIM), which allows communication between the multicast source and receivers on different subnets or in different VLANs. Introduction to IP Multicast Bootcamp also looks at the solutions to complex challenges, such as how group addressing is maintained, how clients learn about sources, and how data integrity and security are maintained.

Also, this course discusses how the Enhanced Interior Gateway Routing Protocol (EIGRP) and Open Shortest Path First (OSPF) use multicast for delivery. Multicast Source Discovery Protocol (MSDP) and Cisco Anycast RP (Rendezvous Point) are two advanced topics that are also briefly explained. This 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 Introduction to IP Multicast Bootcamp Training on Demand course consists of 5 modules and 22 lessons, totaling approximately 6 hours of video, along with 4 hands-on lab exercises.

Target Audience
This course is for individuals who design, deploy, or support IP multicast.
Objectives
After completing this course, you should be able to:

- Describe important concepts relating to IP multicast technology, including: multicast applications, PIM sparse mode (PIM-SM), rendezvous points, and PIM protocol enhancements
- Design, configure, and troubleshoot basic IP multicast networks
- Troubleshoot complex PIM, Multicast Border Gateway Protocol (MBGP), and multicast VPN (MVPN) issues

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

- Working knowledge of enterprise network operations (equivalent to the topics covered in the Cisco CCNA Routing and Switching certification)
- How Layer 2 and Layer 3 protocols work
- How networking devices share and exchange information
- How frame and packets are delivered in routed and switched networks
- Experience configuring the Cisco IOS® command line interface (CLI).
- (Optional) Basic understanding of what IP multicast is and what network problems it solves

Course Outline

- Module 1: Introduction
- Module 2: IGMP and IGMP Snooping
- Module 3: Layer 3 Multicast—PIM Dense Mode
- Module 4: Layer 3 Multicast—PIM Sparse Mode
- Module 5: Advanced Multicast Topics

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

Figure 1. Topology for All Labs in Introduction to IP Multicast Bootcamp Course
The labs included in this course are:

- Lab 1: L2 Multicast and IGMP
- Lab 2: PIM Dense Mode
- Lab 3: PIM Sparse Mode and Bootstrap Route
- Lab 4: Anycast RP and MSDP

**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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