Implementing Cisco Multicast (MCAST)

Description

The **Implementing Cisco Multicast (MCAST)** training teaches you the fundamentals of IP multicasting, including multicast applications, sources, receivers, group management, and IP multicast routing protocols such as Protocol Independent Multicast (PIM) used within a single administrative domain. You will learn about issues in switched LAN environments and reliable IP multicasting, and technical solutions for simple deployments of IP multicast within a provider or customer network. The training reviews the configuration and troubleshooting guidelines for implementation of IP multicast on Cisco® routers. Labs offer hands-on experience to help you prepare to deploy IP multicast successfully.

This training also earns you 40 Continuing Education (CE) credits toward recertification.

How you'll benefit

This training will help you:

- Gain a solid understanding of the fundamentals of IP multicasting
- Understand the configuration and troubleshooting guidelines for implementation of IP multicast on Cisco routers
- Prepare to deploy IP multicast within a provider or customer network
- Earn 40 CE credits toward recertification

Who should enroll

- Network Professionals, including Systems Engineers
- Channel Partners
- Customers

Technology areas

- Networking

Objectives

- Describe IP multicast services

- Identify IP multicast issues on a data link layer
- Explain why Protocol Independent Multicast Sparse Mode (PIM-SM) is the most current scalable IP multicast routing protocol
- Describe Rendezvous Point (RP) distribution solutions
- Recognize the drawbacks of the PIM-SM and describe two extensions to provide possible solutions
- Explain basic concepts of Multiprotocol BGP (MP-BGP) and its use in the IP multicast environment
- Configure and deploy Multicast Source Discovery Protocol (MSDP) in the interdomain environment
- Describe solutions to mitigate security issues in the IP multicast network
- Describe the process of monitoring and maintaining multicast high-availability operations
- Design multicast-related application and network solutions in customer and service provider networks

Prerequisites

There are no prerequisites for this training. However, the knowledge and skills you are recommended to have before attending this training are:

- Work experience and configuration skills for Cisco routers and LAN switches

Outline

- IP Multicast Concepts and Technologies
- Multicast on the LAN
- PIM Sparse Mode
- Rendezvous Point Engineering
- PIM Sparse Mode Protocol Extensions
- Multiprotocol Extensions for BGP
- Interdomain IP Multicast
- IP Multicast Security
- Multicast Optimization and High-Availability Features
- Applications of Multicast

Lab Outline

- Layer 2 and Layer 3 Multicast
- PIM-SM Protocol Basics
- PIM-SM Protocol Mechanics and Timers
- PIM Sparse-Dense Mode and Manual RP Configuration
- Configuring Dynamic RP Information Distribution
- Bidirectional PIM
- Source-Specific Multicast
- Anycast RP, External MP-BGP, and MSDP Peering

Links

- [Cisco U. Learning Path](#)
- [Cisco Learning Locator](#)