

# Implementing Cisco Multicast (MCAST) v2.0

## **What you'll learn**

The Implementing Cisco Multicast (MCAST) v2.0 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.

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

Who should enroll

Network professionals

Systems engineers

Partners

Customers

Technology areas

Networking

## **Training overview**

Objectives

## **After taking this training, you should be able to:**

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

We recommend that you have the following knowledge and skills before taking this training:

Work experience and configuration skills for Cisco routers and LAN switches

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