

Implementing Cisco Multicast (MCAST) v2.0 Course

Course Duration: 40 Hours

Course Code: MCAST v2.0

1. Course Overview

The *Implementing Cisco Multicast (MCAST) v2.0* course provides comprehensive knowledge and practical skills for deploying IP multicast in an enterprise or service provider environment. It covers multicast applications, protocols, and their implementation on Cisco routers and switches. Participants will learn to configure, manage, and troubleshoot multicast features using technologies such as PIM-SM, MSDP, and Source-Specific Multicast (SSM). This course ensures you are prepared to design scalable and efficient multicast solutions for modern networks.

2.2. What You'll Learn?

By the end of this course, you will be able to:

- Understand IP multicast concepts, terminology, and applications.
- Configure Protocol Independent Multicast-Sparse Mode (PIM-SM).
- Implement and troubleshoot Source-Specific Multicast (SSM).
- Explore Multicast Source Discovery Protocol (MSDP) operations.
- Optimize multicast routing performance and scalability.
- Deploy multicast in both enterprise and service provider networks.
- Secure multicast traffic using best practices.

3. Target Audience

This course is ideal for:

- Network engineers and technicians
- Support engineers
- Consulting systems engineers
- Cisco integrators and partners
- Professionals preparing for Cisco CCNP and CCIE certifications in Enterprise or Service Provider tracks

4. Pre-Requisites

Participants should have the following skills and knowledge before taking this course:

- Understanding of IP routing fundamentals
- Familiarity with Cisco IOS command-line interface
- Knowledge equivalent to Cisco CCNP Enterprise-level routing and switching
- Experience with TCP/IP networking

5. Course Content (Modules)

Module 1: Introduction to IP Multicast

- Multicast concepts, terminology, and applications
- Multicast addressing and distribution models

Module 2: Protocol Independent Multicast (PIM-SM)

- PIM-SM operation and configuration
- Rendezvous Point (RP) distribution methods

- Troubleshooting PIM-SM

Module 3: Source-Specific Multicast (SSM)

- SSM concepts and benefits
- Configuring and verifying SSM

Module 4: Multicast Source Discovery Protocol (MSDP)

- MSDP operations and configuration
- Inter-domain multicast

Module 5: Multiprotocol BGP (MP-BGP) and Multicast

- BGP for inter-domain multicast
- Configuring and troubleshooting multicast with BGP

Module 6: Multicast Security and Optimization

- Securing multicast traffic
- Multicast scaling and performance best practices

Module 7: Troubleshooting Multicast

- Tools and techniques for diagnosing multicast issues
- Case studies and real-world examples