

CS-AMCAST



ADVANCED IP MULTICAST CONCEPTS AND LARGE-SCALE MULTICAST DESIGN

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
3 Days	Advanced	Cisco IP Multicast	Instructor Led	N/A

INTRODUCTION

This three-day course thoroughly covers advanced IP multicast designs and protocols specific to Cisco routers and switches and covers inter-domain routing, Internet multicast, multicast scalability, transport diversification, and multicast MPLS VPNs.

AUDIENCE PROFILE

This course is intended primarily for any professional supporting IP multicast networks.

PREREQUISITES

The knowledge and skills that a learner must have before attending this course are as follows:

- CCNA. Be Familiar with IP Networking, IOS software commands and basic multicast principles

COURSE OBJECTIVES

On completion of this course, participants should:

- Understand the fundamental requirements for inter-domain multicast
- Be able to design control planes for identifying source and receiver, as well as the downstream control plane
- Support multicast transport where cloud service providers don't support native multicast
- Use multicast VPNs to logically separate traffic on the same physical infrastructure
- Explore the unique nuances of multicast in the data centre
- Implement Virtual Port Channel (vPC), Virtual Extensible LAN (VXLAN), and Cisco's Application Centric Infrastructure (ACI)
- Design multicast solutions for specific industries or applications
- Walkthrough examples of best-practice multicast deployments

COURSE CONTENT

Lesson 1: Interdomain Routing and Internet Multicast

- Introduction to Interdomain Multicast
- What Is a Multicast Domain?
- Multicast Source Discovery Protocol
- Intradomain versus Interdomain Design Models

Lesson 2: Multicast Scalability and Transport Diversification

- Enterprise Adoption of Cloud Services
- Cloud Connectivity to an Enterprise
- Virtual Services in a Cloud

- Service Reflection Feature
- Multicast Traffic Engineering

Lesson 3: Multicast MPLS VPNs Multicast in an MPLS VPN Network

- In-Band Signaling Operation
- Out-of-Band (Overlay) Signaling Operation
- Default MDT MLDP
- Profiles
- IPv6 MVPN
- Bit Index Explicit Replication (BIER)

Lesson 4: Multicast in Data Center Environments Multicast in a VPC Environment

- VXLAN
- VTEP
- Multicast in ACI Data Center Networks

Lesson 5: Multicast Design Solutions

- Multicast-Enabled Clinical Networks
- Multicast Considerations for Wireless Networks
- Multicast and Software-Defined Networking
- Multicast in Utility Networks

- Multicast-Enabled Markets
- Service Provider Multicast

Lesson 6: Advanced Multicast Troubleshooting

- Troubleshooting Interdomain Multicast Networks
- Troubleshooting PIM with Traffic Engineering

- Troubleshooting MVPN
- Verifying Multicast in VXLAN

ASSOCIATED CERTIFICATIONS & EXAM

There is no exam associated with this course.