

Advanced IP Multicast

Advanced IP Multicast course provides an advanced three day hands-on study of IP multicast technology focusing on architectures, applications and protocols. All aspects of IP multicasting are covered including PC, server and switch implementations. Design, configuration, support and troubleshooting are all covered in the course. Hands on sessions are used to reinforce the theory rather than teach specific implementations.

Duration: 3 days

Batch Size: 5 – 7

Prerequisites

- Cisco Certified Network Associate (CCNA) certification or equivalent level of working knowledge
- Building Scalable Cisco Internetworks (BSCI) and Configuring BGP on Cisco Routers (BGP) certifications of equivalent level of working knowledge

Course Objectives

After completing this course the student should be able to:

- Design multicast networks.
- Explain how multicast networks work.
- Compare and contrast the different multicast routing protocols, such as DVMRP, PIM, MBGP and SSM.
- Configure PCs, servers, switches and routers for multicasting.
- Configure multicast routing protocols including:
 - PIM Dense Mode.
 - PIM Sparse Mode
- Troubleshoot multicast networks.
- Design Small Sized Multicast Networks

Course Outline

- Introduction to IP Multicasting
- IP Multicast Addressing and Architectures
- Multicasting in Switched Infrastructure
- Theory behind Multicast Routing
- PIM (Sparse Mode, Dense Mode, Sparse-Dense Mode)
- Bi-Directional PIM
- MBGP
- Inter-Domain Multicasting
- Multicast Design Overview
 - Multicast Design Guidelines - Campus LANs
 - Multicast Design Guidelines - WAN
 - Multicast Design Guidelines – Security, Timers, Traffic Engineering