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## Implementing Cisco Multicast

**Duration: 5 Days**    **Course Code: MCAST**

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### Overview:

This course provides delegates with in-depth knowledge of the IP multicast building blocks that make this new IP service deployable and attractive from a business perspective. Bandwidth and processing power are wasted when data is replicated and sent from a source to potential receivers multiple times. With IP multicast and a sophisticated group of protocols, the information is delivered with minimal impact on bandwidth and processor load. This IP service ensures simultaneous information delivery only to the people and the machines that require the information.

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### Target Audience:

This course is intended for pre and post-sales technical engineers responsible for designing, implementing, and/or troubleshooting basic IP multicast enabled networks within a single domain. Also, those individuals that are working toward their CCIP certification.

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### Objectives:

- At the end of the course delegates will be able to:-
  - Determine IP multicasting services and their implementation needs
  - List various types of multicast applications and determine their requirements
  - Identify the IP multicast conceptual model and its implementation details
  - Explain the issues of multicast technologies on data-link layer
  - Explain the principles and detailed operation of PIM Dense mode
  - Identify the roles of various PIM DM control packets
  - Identify the deficiencies of PIM DM
  - Configure and troubleshoot Cisco routers for PIM Dense mode
  - Explain the principles and detailed operation of PIM Sparse mode
  - Identify the roles of various PIM Sparse mode control packets
  - Configure and troubleshoot Cisco routers for PIM Sparse mode
  - Describe the variants of PIM Sparse mode (Bi-directional PIM and Source Specific Multicast)
  - Describe the problems of basic IP multicast model with respect to reliability and application requirements
  - List existing technologies that introduce reliability into IP multicast
  - Configure and troubleshoot Pragmatic General Multicast (PGM)
  - Configure Cisco routers and LAN switches for CGMP, IGMP Snooping and RGMP
  - Troubleshoot Cisco routers and LAN switches for IP multicast in switched LAN networks
  - Identify the problems of IP multicast on a data link layer of NBMA networks
  - Configure and troubleshoot PIM NBMA mode on Cisco routers
  - Determine the business drivers for IP multicast
  - Assess the needs of a customer with respect to planned multicast applications
  - Explain the deployment issues of the IP multicast model
  - Select multicast protocols for different environments
  - Design and implement IP multicast for simple networking environments.
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### Prerequisites:

Delegates are required to meet the following prerequisites:

- Completion of BSCI, Building Scalable Cisco Internetworks.

### Testing and Certification

This course, along with QOS is recommended in the preparation for the MCAST + QOS exam (Cisco test no. 640-905).

Counts towards:  
Cisco Certified Internetwork Professional (CCIP)

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### Follow-on-Courses:

- NAC – Network Admission Control
  - CANAC – Implementing Network Appliance (Cisco Clean Access)
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### Content:

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| <ul style="list-style-type: none"><li>■ IP Multicast Technology</li><li>■ PIM Dense Mode Protocol, Configuration, Monitoring and Troubleshooting</li></ul> | <ul style="list-style-type: none"><li>■ Sparse Mode Multicast Protocols, Configuration, Monitoring and Troubleshooting</li><li>■ Reliable IP Multicasting, Configuration, Monitoring and Troubleshooting</li></ul> | <ul style="list-style-type: none"><li>■ Implementation, Monitoring and Troubleshooting of IP Multicast on Data Link Layer</li><li>■ Simple Intradomain Deployment of IP Multicasts</li></ul> |
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### Further Information:

For More information, or to book your course, please call us on 353-1-814 8200

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[www.globalknowledge.ie](http://www.globalknowledge.ie)

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