

# Introducing IP Fundamentals of Cisco Fabric for Media (IPFMFD) v1.0

## What you'll learn in this course

The **Introducing IP Fundamentals of Cisco Fabric for Media (IPFMFD) v1.0** course introduces you to Internet Protocol (IP) technologies. This course covers Ethernet functions and standards, the basic principles of IP, the TCP/IP stack, and other technologies used in modern networks. Lab exercises focus on configuring basic IP functionality on switches and servers.

## What to expect

- E-learning: Equivalent of 2 days in the classroom with hands-on lab practice

## How you'll benefit

This class will help you:

- Gain a solid foundation in how Ethernet functions and standards, IP, the TCP/IP stack, and other technologies are used in modern networks
- Prepare to use Cisco® IP Fabric for Media (IPFM) to deploy a flexible, scalable, and secure IP-based media infrastructure

## Who should enroll

This course is designed for broadcast engineers with no previous IP experience.

## How to enroll

- For individual e-learning, visit [Cisco Learning Network Store](#).
- For e-learning volume discounts, email [ask\\_cpil@cisco.com](mailto:ask_cpil@cisco.com).
- For digital library access, visit [Cisco Platinum Learning Library](#).

## Technology areas

- Service provider
- Media
- Networking

## Course details

### Objectives

After taking this course, you should be able to:

- Describe Ethernet communication functions and standards
- Explain basic hardware components that are used to build networks
- Describe the OSI and TCP/IP models
- Describe IPv4 and IPv6 addressing
- Describe TCP and User Datagram Protocol (UDP)

- Explain packet delivery between end hosts
- Explain the port channel features on Cisco Nexus® switches
- Describe basic routing functionalities
- Understand IP multicast technologies
- Describe data center network architectures

## Prerequisites

There are no prerequisites for this course.

## Outline

- Describing Ethernet Functions and Standards
- Ethernet Hardware
- Describing the OSI and TCP/IP Models
- Understanding Ethernet and Switch Operation
- Describing IPv4 Network Layer Addressing
- Understanding the TCP/IP Transport Layer
- Packet Delivery Process
- Describing Routing
- IP Multicast
- Describing Data Center Network Architectures
- Virtualization and Software-Defined Networking

## Lab Outline

- Configure VLANs and Trunks
- Configure Multilayer Switching and IP Addressing
- Configure OSPF
- Multicast on Cisco Nexus Switches



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