

Cisco® Introducing IP Fundamentals of Cisco® Fabric for Media v2.0 (IPFMFD)

Overview

The Introducing IP Fundamentals of Cisco Fabric for Media (IPFMFD) v2.0 course introduces you to Internet Protocol (IP) technologies. This course covers Ethernet functions and standards, the basic principles of IP, the Transmission Control Protocol/Internet Protocol (TCP/IP) stack, and other technologies used in modern networks. Lab exercises focus on configuring basic IP functionality on switches and servers.

Prerequisite Comments

To fully benefit from this course, you should have the following knowledge and skills:

- Basic computer literacy
- Basic PC operating system navigation skills
- Basic Internet usage skills
- Basic IP address knowledge
- Basic understanding of networking protocols

Target Audience

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

Course Objectives

After taking this course, you should be able to:

- Identify the components of a computer network and describe their basic characteristics.
- Describe network fundamentals, and explain a simple LAN.
- Describe hardware and wiring that is used to build a network.
- Describe the Open Systems Interconnection (OSI) reference model.
- Explain the datalink layer characteristics, Ethernet protocol, and switch operation.
- Introduce students to key network layer components, definitions, and standards.
- Explain the purpose and functions of the transport layer.
- Describe end-to-end packet delivery.
- Describe routing.
- Describe multicast networks, applications, and protocols.
- Explain data center architecture in each layer and describe new leaf-spine topology approaches.
- Explain virtualization and Software-Defined Networking (SDN).

Course Outline

1 - Course Outline

Course Introduction
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

2 - Lab Outline

Configure VLANs and Trunks
Configure Multilayer Switching and IP Addressing
Configure Open Shortest Path First (OSPF)
Multicast on Cisco Nexus® Switches
