

Ethernet Basics

As the communications industry transitions to wireless and wireline converged networks to support voice, video, data and mobile services over IP networks, a solid understanding of Ethernet and its role in networking is essential. Ethernet is native to IP and has been adopted in various forms by the communication industry. A solid foundation in IP and Ethernet has become a basic job requirement in the industry. Starting with a brief history, the course provides a focused basic level introduction to the fundamentals of Ethernet technology. It is a modular introductory course only on Ethernet basics as part of the overall eLearning IP fundamentals curriculum.

Intended Audience

This course is intended for those seeking a basic level introduction to Ethernet technology.

Objectives

After completing this course, the student will be able to:

- Define Ethernet
- Summarize the key variations of the Ethernet family of standards
- Discuss Ethernet addressing and frame structure
- Discuss Ethernet services offered by carriers

What You Can Expect

- Self-Paced Duration: 1.5 HOUR

Outline

1. Ethernet Defined

- 1.1 What is Ethernet?
- 1.2 CSMA/CD

2. Ethernet Standards

- 2.1 Media and Connectors
- 2.2 Auto Negotiation

3. Ethernet Addressing and Frame Structure

- 3.1 Details of MAC addresses
- 3.2 Ethernet frame structure

4. Carrier Ethernet

- 4.1 Definition and Service types
- 4.2 SLA and Service Continuity

Putting It All Together