Ethernet Basics

IPC_119d | On-Demand | Transport | Express
Course Duration: 1.5 hours

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

Course Prerequisites

No Prerequisites

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

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