Networking Fundamentals

This course covers the fundamentals of local area networking, defining networks with the OSI Model and understanding wired and wireless networks. In addition it includes understanding Internet Protocol, implementing TCP/IP and working with networking services. The students will better understand wide area networks along with defining network infrastructures and network security.

Duration: 16 hours
Prerequisites: None.
CEUs: 1.6

TOPICS COVERED

- Understanding Local Area Networking
- Defining Networks with the OSI Model
- Understanding Wired and Wireless Networks
- Understanding Internet Protocol
- Implementing TCP/IP in the Command Line
- Working with Networking Services
- Understanding Wide Area Networks
- Defining Network Infrastructures and Network Security

LEARNING OBJECTIVES

- Identify hardware and software network components and their functionality
- Define how networks actually transport data using the OSI model
- Recognize wired networks and media types, identify wireless devices and standards
- Configure, analyze and test IP networks
- Demonstrate the basics of DHCP and Terminal services
- Define the most common WAN technologies and routing protocols.
- Apply infrastructure concepts such as VPNS, intranets, and extranets
- Deploy security devices like firewalls and proxy server