

Network + CompTIA Network+ Certification

Duration: 5 days

Price: \$4000

Certifications: CompTIA Network+

Exams: N10-006

Course Overview

The student will describe the major networking technologies, systems, skills, and tools in use in modern networks. Taking this course will help the student prepare for the N10-006 exam and certification.

Target Audience

This course is intended for entry-level computer support professionals with a basic knowledge of computer hardware, software, and operating systems to prepare for the CompTIA® Network+® (Exam N10-006), or who wish to increase their knowledge and understanding of networking concepts and acquire the required skills to prepare for a career in network support or administration. Tier 1 & 2 Support Personnel seeking IAT-1 certification to fulfill the DoD 8570.1 Directive.

Course Objectives

Upon successful completion of this course, students will be able to:

- Identify the basic network theory concepts.
- Identify the major network communications methods.
- Describe network media and hardware components.
- Identify the major types of network implementations.

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- Identify the components of a TCP/IP network implementation.
- Identify TCP/IP addressing and data delivery methods.
- Identify the major services deployed on TCP/IP networks.
- Identify the components of a LAN implementation.
- Identify the infrastructure of a WAN implementation.
- Identify the components of a remote network implementation.
- Identify the major issues and methods to secure systems on a network.
- Identify the major issues and technologies in network security.
- Identify network security threats and attacks.
- Identify the tools, methods, and techniques used in managing a network.
- Describe troubleshooting of issues on a network

Course Outline

1 - Network Theory

- Networking Terminology
- Network Categories
- Standard Network Models
- Physical Network Topologies
- Logical Network Topologies

2 - Network Communications Methods

- Data Transmission Methods
- Media Access Methods
- Signaling Methods

3 - Network Media and Hardware

- Bounded Network Media
- Unbounded Network Media
- Noise Control
- Network Connectivity Devices

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4 - Network Implementations

- Ethernet Networks
- Wireless Networks

5 - Networking Models

- The OSI Model
- The TCP/IP Model

6 - TCP/IP Addressing and Data Delivery

- The TCP/IP Protocol Suite
- IP Addressing
- Default IP Addressing Schemes
- Create Custom IP Addressing Schemes
- Implement IPv6 Addresses
- Delivery Techniques

7 - TCP/IP Services

- Assign IP Addresses
- Domain Naming Services
- TCP/IP Commands
- Common TCP/IP Protocols
- TCP/IP Interoperability Services

8 - LAN Infrastructure

- Switching
- Enable Static Routing
- Implement Dynamic IP Routing
- Virtual LANs
- Plan a SOHO Network

9 - WAN Infrastructure

- WAN Transmission Technologies

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- WAN Connectivity Methods
- Voice over Data Transmission

10 - Remote Networking

- Remote Network Architectures
- Remote Access Networking Implementations
- Virtual Private Networking
- VPN Protocols

11 - System Security

- Computer Security Basics
- System Security Tools
- Authentication Methods
- Encryption Methods

12 - Network Security

- Network Perimeter Security
- Intrusion Detection and Prevention
- Protect Network Traffic Using IPSec

13 - Network Security Threats and Attacks

- Network-Based Security Threats and Attacks
- Apply Threat Mitigation Techniques
- Educate Users

14 - Network Management

- Network Monitoring
- Configuration Management Documentation
- Network Performance Optimization

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15 - Network Troubleshooting

- Network Troubleshooting Models
- Network Troubleshooting Utilities
- Hardware Troubleshooting Tools
- Common Connectivity Issues

Prerequisites

- CompTIA recommends 9 months of network-related IT experience (not mandatory)
- A+ Certification Prep Course