CompTIA Network+ Day

Length: 5 days
Format: Classroom
Time: Day

About This Course

The CompTIA Network+ course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present the fundamental skills and concepts that you will need to use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification.

The CompTIA Network+ course can benefit you in two ways. It can assist you if you are preparing to take the CompTIA Network+ examination (Exam N10-007). Also, if your job duties include network troubleshooting, installation, or maintenance, or if you are preparing for any type of network-related career, it provides the background knowledge and skills you will require to be successful.

Click here to find your place on the CompTIA pathway.

Required Exams

Audience Profile

This course is intended for entry-level computer support professionals with a basic knowledge of computer hardware, software, and operating systems 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, or who wish to prepare for the CompTIA Network+ certification (Exam N10-007).

Course Objectives

After completing this course, students will be able to:

* Identify basic network theory concepts and major network communications methods.
* Describe bounded network media.
* Identify unbounded network media.
* Identify the major types of network implementations.
* Identify TCP/IP addressing and data delivery methods.
* Implement routing technologies.

* Identify the major services deployed on TCP/IP networks.
* Identify the infrastructure of a WAN implementation.
* Identify the components used in cloud computing and virtualization.
* Describe basic concepts related to network security.
* Prevent security breaches.
* Respond to security incidents.
* Identify the components of a remote network implementation.
* Identify the tools, methods, and techniques used in managing a network.
* Describe troubleshooting of issues on a network

Outline

Lesson 1: Network Theory * Networking Overview
* Network Standards and the OSI Model
* Network Types
* Identify Network Configurations
* Data Transmission Methods

Lesson 2: Bounded Network Media * Copper Media
* Fiber Optic Media
* Bounded Network Media Installation
* Noise Control

Lesson 3:Unbounded Network Media * Wireless Networking
* Wireless Network Devices and Components
* Install a Wireless Network

Lesson 4:Network Implementations * Physical Network Topologies
* Logical Network Topologies
* Ethernet Networks
* Network Devices
* VLANs

Lesson 5:TCP/IP Addressing and Data Delivery * The TCP/IP Protocol Suite
* IPv4 Addressing
* Default IP Addressing Schemes
* Create Custom IP Addressing Schemes
* IPv6 Address Implementation
* Delivery Techniques

Lesson 6:Routing

* Enable Static Routing
* Implement Dynamic IP Routing

Lesson 7:TCP/IP Services * Assign IP Addresses
* Domain Naming Services
* TCP/IP Commands
* Common TCP/IP Protocols

Lesson 8:WAN Infrastructure * WAN Basics
* WAN Connectivity Methods
* WAN Transmission Technologies
* Unified Communication Technologies

Lesson 9:Cloud and Virtualization Technologies * Virtualization
* SAN Implementations
* Cloud Computing

Lesson 10:Network Security Basics * Introduction to Network Security
* Vulnerabilities
* Threats and Attacks
* Authentication Methods
* Encryption Methods

Lesson 11:Preventing Security Breaches * Physical Security Controls
* Network Access Controls
* Install and Configure Firewalls
* Harden Networks
* Intrusion Detection and Prevention
* Educate Users

Lesson 12:Responding to Security Incidents * Incident Management and Response
* Basic Forensic Concepts

Lesson 13:Remote Networking * Remote Network Architectures
* Remote Access Networking Implementations
* Virtual Private Networking
* VPN Protocols

Lesson 14:Network Management * Network Monitoring
* Configuration Management Documentation

* Network Performance Optimization

Lesson 15:Troubleshooting Network Issues * Network Troubleshooting Models
* Network Troubleshooting Utilities
* Hardware Troubleshooting Tools Common Connectivity Issues
* Troubleshoot Security Configuration Issues
* Troubleshoot Security Issues