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Learning Style: On Demand

Technology: CompTIA

Difficulty: Beginner

Course Duration:

CompTIA Network+

The CompTIA Network+ certification is a globally recognized credential that validates the essential skills required to design, configure, manage, and troubleshoot wired and wireless networks. This Network+ online course provides the foundational networking knowledge every IT professional needs to support today’s complex infrastructures and evolving technologies.

Through this Network+ on demand training, students learn at their own pace while preparing for the CompTIA Network+ certification exam (N10-009). The course

builds expertise in routing and switching essentials, infrastructure configuration skills, network troubleshooting fundamentals, and network security essentials. Students explore real-world applications of TCP/IP foundational training, wireless and cloud networking basics, and virtualization and cloud networking, developing the technical confidence to excel in modern IT environments.

This Network+ certification online course also introduces AI in networking fundamentals, helping students understand automation, network monitoring, and performance optimization in intelligent systems. Completing this self-paced learning path prepares professionals for entry-level IT networking skills and roles that form the help-desk-to-network-engineer pathway.

Certified professionals with a CompTIA Network+ credential earn an average annual salary of around $92,000 in the United States, with experienced network engineers and administrators commanding higher pay as they advance.

Course Objectives:

Once the course is complete, the candidate will be able to

- Explain what bounded networking media is
- Identify major network communication methods along with basic network theory concepts.
- Explain what unbounded network media is
- Identify TCP/IP data delivery and addressing methods
- Analyze switching and routing technologies
- Identity the major kinds of network deployments
- Identify TCP/IP deployment components
- Deploy network security
- Analyze network security
- Identify virtualization and cloud computing components
- Identity WAN deployment components
- Identify remote network deployment components
- Troubleshoot network issues
- Manage networks

Audience:

The course is intended to be undertaken by computer support professionals who may be either looking for or occupying entry level positions, having a basic knowledge of computer software, hardware, and operating systems. It is also intended to be opted for by those who wish to take the CompTIA® Network+® exam. Additionally, anybody who wants to enhance their understanding and knowledge of networking concepts while gaining the skills needed to excel in network support career or administration career, then this course is a must for them.

The candidate opting for this course must have at least 9 months of computer support experience as a help desk or PC technician. Having prior experience in networking or A+ certification will become a huge advantage, but it is not mandatory for the candidate to have these before enrolling in this course.

Prerequisites:

Regardless of whether you have passed A+, it is recommended that you have the following skills and knowledge before starting this course:

- Configure and support PC, laptop, mobile (smartphone / tablet), and print devices.
- Know basic network terminology and functions (such as Ethernet, TCP/IP, switches, routers).
- Configure and manage users, groups, and shared resources in a simple SOHO network.
- Understand the use of basic access control measures, such as authentication, security policy, encryption, and firewalls.
- Understand TCP/IP addressing, core protocols and troubleshooting tools.

Course Outline:

- Module 1: Explaining Network Topologies
    - Lesson 1.1: Networking Overview
    - Lesson 1.2: OSI Model Concepts
    - Lesson 1.3: SOHO Networks
    - Lesson 1.4: Troubleshooting Methodology
- Module 2: Supporting Cabling and Physical Installations
    - Lesson 2.1: Ethernet
    - Lesson 2.2: Copper Cables and Connectors
    - Lesson 2.3: Wiring Implementation
    - Lesson 2.4: Fiber Optic Cables and Connectors
    - Lesson 2.5: Physical Installation Factors
    - Lesson 2.6: Cable Troubleshooting

- Module 3: Configuring Interfaces and Switches
    - Lesson 3.1: Network Interfaces
    - Lesson 3.2: Ethernet Switches
    - Lesson 3.3: Switch Port Configuration
    - Lesson 3.4: Switch Troubleshooting
- Module 4: Configuring Network Addressing
    - Lesson 4.1: Internet Protocol Basics
    - Lesson 4.2: IP Version 4 Addressing
    - Lesson 4.3: IP Version 4 Subnetting
    - Lesson 4.4: IP Troubleshooting Tools
    - Lesson 4.5: IP Version 6
- Module 5: Configuring Routing and Advanced Switching
    - Lesson 5.1: Routing Technologies
    - Lesson 5.2: Dynamic Routing Technologies
    - Lesson 5.3: Network Address Translation
    - Lesson 5.4: Firewalls
    - Lesson 5.5: Enterprise Network Topologies
    - Lesson 5.6: Virtual LANs
    - Lesson 5.7: Routing and VLAN Troubleshooting
- Module 6: Implementing Network Services
    - Lesson 6.1: Transport and Application Layer Protocols
    - Lesson 6.2: Dynamic Host Configuration Protocol
    - Lesson 6.3: APIPA and SLAAC
    - Lesson 6.4: DHCP Relay and Troubleshooting
    - Lesson 6.5: Domain Name System
    - Lesson 6.6: DNS Troubleshooting
- Module 7: Explaining Application Services
    - Lesson 7.1: Application Security and Time Synchronization
    - Lesson 7.2: Web, File/Print, and Database Services
    - Lesson 7.3: Email and Voice Services
    - Lesson 7.4: Disaster Recovery and High Availability
- Module 8: Supporting Network Management
    - Lesson 8.1: Organizational Policies and Documentation
    - Lesson 8.2: Host Discovery and Monitoring
    - Lesson 8.3: Simple Network Management Protocol
    - Lesson 8.4: Event Management
    - Lesson 8.5: Packet Capture and Analysis
    - Lesson 8.6: Traffic Monitoring
- Module 9: Explaining Network Security Concepts
    - Lesson 9.1: Security Concepts
    - Lesson 9.2: Network Threats and Attacks
    - Lesson 9.3: Spoofing Attacks
    - Lesson 9.4: Rogue System Attacks
    - Lesson 9.5: Social Engineering
- Module 10: Applying Network Security Features
    - Lesson 10.1: Authentication
    - Lesson 10.2: Authentication and Account Management
    - Lesson 10.3: Network Hardening
    - Lesson 10.4: Switch Security
    - Lesson 10.5: Network Security Rules

- Module 11: Supporting Network Security Design
    - Lesson 11.1: Zone-Based Security
    - Lesson 11.2: Internet of Things
    - Lesson 11.3: Physical Security
- Module 12: Configuring Wireless Networks
    - Lesson 12.1: Wireless Concepts and Standards
    - Lesson 12.2: Enterprise Wireless Network Design
    - Lesson 12.3: Wireless Security
    - Lesson 12.4: Wireless Troubleshooting
- Module 13: Comparing Remote Access Methods
    - Lesson 13.1: WAN and Internet Connectivity
    - Lesson 13.2: Comparing Remote Access Methods
    - Lesson 13.3: Remote Management
- Module 14: Summarizing Cloud Concepts
    - Lesson 14.1: Datacenter and Storage Networks
    - Lesson 14.2: Cloud Concepts
    - Lesson 14.3: Cloud Networking
    - Lesson 14.4: Modern Network Environments