



## CompTIA Network+ Certification (Exam N10-008)

### Summary

Length: 40 hours Level: Experienced

CompTIA Network+ validates the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on. Unlike other vendor-specific networking certifications, CompTIA Network+ prepares candidates to support networks on any platform. CompTIA Network+ is the only certification that covers the specific skills that network professionals need. Other certifications are so broad, they don't cover the hands-on skills and precise knowledge needed in today's networking environments. This course will prepare you to take the CompTIA Network+ certification exam. This course may earn a Credly Badge.

### Learning Objectives

At course completion, students will be knowledgeable in:

- Comparing OSI Model Network Functions
- Deploying Ethernet Cabling
- Deploying Ethernet Switching
- Troubleshooting Ethernet Networks
- Explaining IPv4 Addressing
- Supporting IPv4 and IPv6 Networks
- Configuring and Troubleshooting Routers
- Explaining Network Topologies and Types
- Explaining Transport Layer Protocols
- Explaining Network Services
- Explaining Network Applications
- Ensuring Network Availability
- Explaining Common Security Concepts
- Supporting and Troubleshooting Secure Networks
- Deploying and Troubleshooting Wireless Networks
- Comparing WAN Links and Remote Access Methods
- Explaining Organizational and Physical Security Concepts
- Explaining Disaster Recovery and High Availability Concepts
- Applying Network Hardening Techniques
- Summarizing Cloud and Datacenter Architecture

### Course Outline

#### 1. Comparing OSI Model Network Functions

- Topic 1A- Compare and Contrast OSI Model Layers
- Topic 1B- Configure SOHO Networks

#### 2. Deploying Ethernet Cabling

- Topic 2A- Summarize Ethernet Standards
- Topic 2B- Summarize Copper Cabling Types
- Topic 2C- Summarize Fiber Optic Cabling Types

#### 3. Deploying Ethernet Switching

- Topic 3A- Deploy Networking Devices
- Topic 3B- Explain Network Interfaces
- Topic 3C- Deploy Common Ethernet Switching Features

4. **Troubleshooting Ethernet Networks**
  - Topic 4A- Explain Network Troubleshooting Methodology
  - Topic 4B- Troubleshoot Common Cable Connectivity Issues
  
5. **Explaining IPv4 Addressing**
  - Topic 5A- D Explain IPv4 Addressing Schemes
  - Topic 5B- Explain IPv4 Forwarding
  - Topic 5C- Configure IP Networks and Subnets
  
6. **Supporting IPv4 and IPv6 Networks**
  - Topic 6A- Use Appropriate Tools to Test IP Configuration
  - Topic 6B- Troubleshoot IP Networks
  - Topic 6C- Explain IPv6 Addressing Schemes
  
7. **Configuring and Troubleshooting Routers**
  - Topic 7A- Compare and Contrast Routing Concepts
  - Topic 7B- Compare and Contrast Dynamic Routing Concepts
  - Topic 7C- Install and Troubleshoot Routers
  
8. **Explaining Network Topologies and Types**
  - Topic 8A- Explain Network Types and Characteristics
  - Topic 8B- Explain Tiered Switching Architecture
  - Topic 8C- Explain Virtual LANs
  
9. **Explaining Transport Layer Protocols**
  - Topic 9A- Compare and Contrast Transport Protocols
  - Topic 9B- Use Appropriate Tools to Scan Network Ports
  
10. **Explaining Network Services**
  - Topic 10A- Explain the Use of Network Addressing Services
  - Topic 10B- Explain the Use of Name Resolution Services
  - Topic 10C- Configure DNS Services
  
11. **Explaining Network Applications**
  - Topic 11A- Explain the Use of Web, File/Print, and Database Services
  - Topic 11B- Explain the Use of Email and Voice Services
  
12. **Ensuring Network Availability**
  - Topic 12A- Explain the Use of Network Management Services
  - Topic 12B- Use Event Management to Ensure Network Availability
  - Topic 12C- Use Performance Metrics to Ensure Network Availability
  
13. **Explaining Common Security Concepts**
  - Topic 13A- Explain Common Security Concepts
  - Topic 13B- Explain Authentication Methods
  
14. **Supporting and Troubleshooting Secure Networks**
  - Topic 14A- Compare and Contrast Security Appliances
  - Topic 14B- Troubleshoot Service and Security Issues

15. **Deploying and Troubleshooting Wireless Networks**
  - Topic 15A- Summarize Wireless Standards
  - Topic 15B- Install Wireless Networks
  - Topic 15C- Troubleshoot Wireless Networks
  - Topic 15D- Configure and Troubleshoot Wireless Security
  
16. **Comparing WAN Links and Remote Access Methods**
  - Topic 16A- Explain WAN Provider Links
  - Topic 16B- Compare and Contrast Remote Access Methods
  
17. **Explaining Organizational and Physical Security Concepts**
  - Topic 17A- Explain Organizational Documentation and Policies
  - Topic 17B- Explain Physical Security Methods
  - Topic 17C- Compare and Contrast Internet of Things Devices
  
18. **Explaining Disaster Recovery and High Availability Concepts**
  - Topic 18A- Explain Disaster Recovery Concepts
  - Topic 18B- Explain High Availability Concepts
  
19. **Applying Network Hardening Techniques**
  - Topic 19A- Applying Network Hardening Techniques
  - Topic 19B- Apply Network Hardening Techniques
  
20. **Summarizing Cloud and Datacenter Architecture**
  - Topic 20A- Summarize Cloud Concepts
  - Topic 20B- Explain Virtualization and Storage Area Network Technologies
  - Topic 20C- Explain Datacenter Network Architecture

## Audience

This course is suitable for those with roles such as Network Field Technician/Engineer, Network Administrator, Help Desk Technician, Network Support Specialist, and Network Analyst.

## Prerequisites

CompTIA A+ and/or a minimum of 9 months networking experience recommended.