

The Official CompTIA Network+ (Exam N10-008)

Course Summary

Description

The Official CompTIA Network+ Instructor and Student Guides (N10-008) have been developed by CompTIA for the CompTIA Network+ candidate. Rigorously evaluated to validate coverage of the CompTIA Network+ (N10-008) exam objectives, The Official CompTIA Network+ Instructor and Student Guides teach the knowledge and skills to deploy, secure, and troubleshoot SOHO and enterprise networks, and to prepare candidates to take the CompTIA Network+ certification exam.

Objectives

Successful candidates will have the knowledge required to:

- Explain routing technologies and networking devices; deploy ethernet solutions and configure wireless technologies.
- Monitor and optimize networks to ensure business continuity.
- Explain security concepts and network attacks in order to harden networks against threats.
- Troubleshoot common cable, connectivity, and software issues related to networking.

Topics

- 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

Audience

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.

Prerequisites

To ensure your success in this course, you will need basic Windows end-user computer skills. To meet this prerequisite, you can take the Using Microsoft Windows 10 course, or you should have equivalent experience.

Duration

Five days

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Course Outline

- I. *Comparing OSI Model Network Functions*
 - A. Compare and Contrast OSI Model Layers
 - B. Configure SOHO Networks
- II. *Deploying Ethernet Cabling*
 - A. Summarize Ethernet Standards
 - B. Summarize Copper Cabling Types
 - C. Summarize Fiber Optic Cabling Types
 - D. Deploy Ethernet Cabling
- III. *Deploying Ethernet Switching*
 - A. Deploy Networking Devices
 - B. Explain Network Interfaces
 - C. Deploy Common Ethernet Switching Features
- IV. *Troubleshooting Ethernet Networks*
 - A. Explain Network Troubleshooting Methodology
 - B. Troubleshoot Common Cable Connectivity Issues
- V. *Explaining IPv4 Addressing*
 - A. Explain IPv4 Addressing Schemes
 - B. Explain IPv4 Forwarding
 - C. Configure IP Networks and Subnets
- VI. *Supporting IPv4 and IPv6 Networks*
 - A. Use Appropriate Tools to Test IP Configuration
 - B. Troubleshoot IP Networks
 - C. Explain IPv6 Addressing Schemes
- VII. *Configuring and Troubleshooting Routers*
 - A. Compare and Contrast Routing Concepts
 - B. Compare and Contrast Dynamic Routing Concepts
 - C. Install and Troubleshoot Routers
- VIII. *Explaining Network Topologies and Types*
 - A. Explain Network Types and Characteristics
 - B. Explain Tiered Switching Architecture
 - C. Explain Virtual LANs
- IX. *Explaining Transport Layer Protocols*
 - A. Compare and Contrast Transport Protocols
 - B. Use Appropriate Tools to Scan Network Ports
- X. *Explaining Network Services*
 - A. Explain the Use of Network Addressing Services
 - B. Explain the Use of Name Resolution Services
 - C. Configure DNS Services
- XI. *Explaining Network Applications*
 - A. Explain the Use of Web, File/Print, and Databases Services
 - B. Explain the Use of Email and Voice Services
- XII. *Ensuring Network Availability*
 - A. Explain the Use of Network Management Services
 - B. Use Event Management to Ensure Network Availability
 - C. Use Performance Metrics to Ensure Network Availability
- XIII. *Explaining Common Security Concepts*
 - A. Explain Common Security Concepts
 - B. Explain Authentication Methods
- XIV. *Supporting and Troubleshooting Secure Networks*
 - A. Compare and Contrast Security Appliances
 - B. Troubleshoot Service and Security Issues
- XV. *Deploying and Troubleshooting Wireless Networks*
 - A. Summarize Wireless Standards
 - B. Install Wireless Networks
 - C. Troubleshoot Wireless Networks
 - D. Configure and Troubleshoot Wireless Security
- XVI. *Comparing WAN Links and Remote Access Methods*
 - A. Explain WAN Provider Links
 - B. Compare and Contrast Remote Access Methods
- XVII. *Explaining Organizational and Physical Security Concepts*
 - A. Explain Organizational Documentation and Policies
 - B. Explain Physical Security Methods
 - C. Compare and Contrast Internet of Things Devices

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Course Outline (cont)

XVIII. Explaining Disaster Recovery and High Availability Concepts

- A. Explain Disaster Recovery Concepts
- B. Explain High Availability Concepts

XIX. Applying Network Hardening Techniques

- A. Compare and Contrast Types of Attacks
- B. Apply Network Hardening Techniques

XX. Summarizing Cloud and Datacenter Architecture

- A. Summarize Cloud Concepts
- B. Explain Virtualization and Storage Area Network Technologies
- C. Explain Datacenter Network Architecture