CompTIA Network+

Course Description:
CompTIA Network+ validates the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on.3
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. (N10-008)

Duration: Instructor-led, group-paced, classroom-delivery learning model with structured hands on activities
35 hours (5 days)

Objectives: After completing this course, 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

Prerequisites: CompTIA's A+ Certification is recommended but not required.

Course Outline

1 - COMPARING OSI MODEL NETWORK FUNCTIONS

- Compare and Contrast OSI Model Layers
- Configure SOHO Networks

2 - DEPLOYING ETHERNET CABLING

- Summarize Ethernet Standards
- Summarize Copper Cabling Types

3 - DEPLOYING ETHERNET SWITCHING

- Deploy Networking Devices
- Explain Network Interfaces
- Deploy Common Ethernet Switching Features

4 - TROUBLESHOOTING ETHERNET NETWORKS

- Explain Network Troubleshooting Methodology
- Troubleshoot Common Cable Connectivity Issues

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5 - EXPLAINING IPV4 ADDRESSING

- Explain IPv4 Addressing Schemes
- Explain IPv4 Forwarding
- Configure IP Networks and Subnets

6 - SUPPORTING IPV4 AND IPV6 NETWORKS

- Use Appropriate Tools to Test IP Configuration
- Troubleshoot IP Networks
  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

- Explain Network Types and Characteristics
- Explain Tiered Switching Architecture
  Explain Virtual LANs

9 - EXPLAINING TRANSPORT LAYER PROTOCOLS

- Compare and Contrast Transport Protocols
  Use Appropriate Tools to Scan Network Ports

10 - EXPLAINING NETWORK SERVICES

- Explain the Use of Network Addressing Services
- Explain the Use of Name Resolution Services
  Configure DNS Services

11 - EXPLAINING NETWORK APPLICATIONS

- Explain the Use of Web, File/Print, and Database Services
  Explain the Use of Email and Voice Services

12 - ENSURING NETWORK AVAILABILITY

- Explain the Use of Network Management Services
- Use Event Management to Ensure Network Availability

13 - EXPLAINING COMMON SECURITY CONCEPTS

- Explain Common Security Concepts
- Explain Authentication Methods

14 - SUPPORTING AND TROUBLESHOOTING SECURE NETWORKS

- Compare and Contrast Security Appliances
  Troubleshoot Service and Security Issues

15 - DEPLOYING AND TROUBLESHOOTING WIRELESS NETWORKS

- Summarize Wireless Standards
- Install Wireless Networks
- Troubleshoot Wireless Networks
  Configure and Troubleshoot Wireless Security

16 - COMPARING WAN LINKS AND REMOTE ACCESS METHODS

- Explain WAN Provider Links
  Compare and Contrast Remote Access Methods

17 - EXPLAINING ORGANIZATIONAL AND PHYSICAL SECURITY CONCEPTS

- Explain Organizational Documentation and Policies
- Explain Physical Security Methods
  Compare and Contrast Internet of Things Devices

18 - EXPLAINING DISASTER RECOVERY AND HIGH AVAILABILITY CONCEPTS

- Explain Disaster Recovery Concepts
  Explain High Availability Concepts

19 - APPLYING NETWORK HARDENING TECHNIQUES

- Applying Network Hardening Techniques
  Apply Network Hardening Techniques

20 - SUMMARIZING CLOUD AND DATACENTER ARCHITECTURE

- Summarize Cloud Concepts
- Explain Virtualization and Storage Area Network Technologies
  Explain Datacenter Network Architecture