

CompTIA Network+

Overview

The 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. It also addresses the content described in the exam objectives for the CompTIA Network+ certification. If you are pursuing a CompTIA technical certification path, obtaining the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ examination.

Course Objectives

In this course, you will describe the major networking technologies and systems of modern networks, and configure, manage, and troubleshoot modern networks. You will:

- Explain basic networking concepts including network services, physical connections, topologies and architecture, and cloud connectivity.
- 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.

Duration

5 Days

Who Should Attend

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 N10-008).

Prerequisites

To ensure your success in this course, you will need basic Windows end-user computer skills. Note that the prerequisites for this course might differ significantly from the prerequisites for the CompTIA certification exams.

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Course Topics

Module 1	Network Theory • Network Types • Network Standards and the OSI Model • Data Transmission Methods
Module 2	Bounded Network Media • Copper Media • Fiber Optic Media • Bounded Network Media Installation
Module 3	Unbounded Network Media • Wireless Networking • Wireless Network Devices and Components • Implement Wireless Technology • Internet of Things
Module 4	Network Implementations • Physical Network Topologies • Logical Network Topologies • Ethernet Networks • Network Devices
Module 5	TCP/IP Addressing and Data Delivery • The TCP/IP Protocol Suite • IPv4 Addressing • Default IP Addressing Schemes • Create Custom IP Addressing Schemes • IPv6 Addressing
Module 6	Routing and Switching • Switching • Network Packet Routing • Static and Dynamic IP Routing • VLANs

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Module 7	TCP/IP Implementation • Configure IP Addresses • Naming Services • TCP/IP Utilities • Common TCP/IP Protocols
Module 8	TCP/IP Implementation • Introduction to Network Security • Network Security Policies • Physical Security • Common Network Attacks
Module 9	Network Security Implementation • Authentication • Access Control • Port, Service, and Protocol Security • Wireless Network Security • Patches and Updates • Mitigation Techniques
Module 10	WAN Infrastructure • WAN Basics • WAN Connectivity Methods • WAN Transmission Technologies • VoIP
Module 11	Cloud and Virtualization Techniques • Virtualization Technologies • Network Storage Technologies • Cloud Computing
Module 12	Remote Networking • Remote Network Architectures • Remote Access Network Implementations • Virtual Private Networking

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Module 13	Network Management • Monitor Networks • Document the Network • Establish Baselines • Optimize Network Performance • Ensure Business Continuity
Module 14	Troubleshooting Network Issues • Network Troubleshooting Methodology • Network Troubleshooting Tools • Troubleshoot Wired Connectivity and Performance Issues • Troubleshoot Wireless Connectivity and Performance Issues • Troubleshoot Network Service Issues