



CompTIA Network+® Certification

Overview:

Network+ Certification is a testing program sponsored by CompTIA that is geared toward technicians with 18 to 24 months experience in the IT industry. Network+ Certification is a non-vendor, non-product specific certification program that validates your knowledge as a networking professional and demonstrates a wide range of skills required in today's network environments. The program was developed with the support of major computer hardware and software vendors, distributors, resellers, and publications in the industry.

Network+ Certification covers two main areas of competency: Networking Technology and Networking Practices. The Network+ course offered at Knowledge Center Inc prepares students to take the Network+ exam. Furthermore, the Network+ Certification many times is the first step in achieving a Windows 2000 MCSE or CCNA Certification.

Target Audience:

Network+ Certification is suited for computer technicians who are searching for a challenging career in the administration and support of complex internetworking environments or anyone who wants to learn about fundamentals of Networking and TCP/IP.

Network+ Certification Benefits

After the course completion, the student will be able to demonstrate knowledge of Network Troubleshooting, TCP/IP, Network Operating Systems, Network Installation and Upgrading, Managing User Accounts and Passwords, Remote Access and Administration, and Fault Tolerance and Disaster Recovery. Course Benefits

- Vendor- and product neutral course.
- Increase earnings potential.
- Stay ahead of the competition in this desirable industry.
- Earn an established industry credential that validates your networking expertise.
- Use Network+ Training as a jumping off point to obtain higher level certification.



Steps to Network+ Certification:

To become certified, a student must pass the CompTIA Network+ exam.

Required Prerequisites:

- A+ Certification: Core Hardware
- A+ Certification: Operating Systems

Course Objectives:

- Describe the purpose of networking protocols and networking in general
- Identify features of various network operating systems and the clients used to access them.
- Describe the OSI networking model and its relationship to networking components.
- Describe the network components relating to the Physical layer of the OSI model.
- Describe the function of the Data Link layer of the OSI model.
- Explain how data is transmitted over a network.
- Describe the function of the Network layer of the OSI model.
- Describe the function of the Transport layer of the OSI model.
- Describe the function of the Session layer of the OSI model.
- Explain the fundamental concepts of the TCP/IP protocol suite.
- Explain the use of TCP/IP addresses and subnets.
- Access and use a TCP/IP network.
- Describe the requirements for remote network access.
- Explain the need for and ways to implement network security and fault tolerance.
- Describe the types of information that need to be gathered prior to installing or updating a network operating system.
- Explain ways to monitor and manage a network.
- Describe a systematic approach for troubleshooting network problems.

Exams:

- N10-003 : Network+ Certification



Course Outline:

- I. Basic Network Knowledge
 1. Network and Internetwork Concepts
 2. Network Topologies
 3. Networking Strategies
- II. Servers and Clients
 1. Network Operating System Basics
 2. Network Clients
 3. Directory Services
- III. Introduction to the OSI Model
 1. Introduction to the OSI Model
 2. Families of Protocols
- IV. The Physical Media
 1. Data-transmission Media
 2. Unbounded Media
 3. Signaling
 4. Signal Transmissions
- V. The Data Link Layer
 1. Data Link Layer Considerations
 2. Media Access Control (MAC) and Logical Link Control (LLC)
 3. IEEE 802 Specifications
- VI. Data Transmission
 1. Introduction to Network Connection Devices
 2. Network Adapters
 3. Putting Data on the Cable
 4. Network Topologies
 5. Bridges
- VII. The Network Layer
 1. Addresses
 2. Internetwork Connection Devices
 3. Routers
- VIII. The Transport Layer
 1. Transport Layer Addressing Issues
 2. The Transport Layer Segmenting Process
 3. Transport Layer Connection Services
- IX. The Session Layer
 1. Dialog Control Modes



- 2. Managing the Session
- X. TCP/IP Fundamentals
 - 1. What is TCP/IP?
 - 2. The TCP/IP Protocol Suite
- XI. IP Addressing, Subnetting and Supernetting
 - 1. IP Addressing
 - 2. Interior Gateway Protocols
 - 3. Introduction to Subnetting
 - 4. Supernetting
- XII. Accessing and Using a TCP/IP Network
 - 1. Configuring Clients for TCP/IP Networks
 - 2. TCP/IP Suite Utilities
 - 3. Using TCP/IP Suite Utilities to Check Network Connectivity
- XIII. Remote Access Protocols
 - 1. Remote Access Protocols
 - 2. Examining Remote Connection Options
 - 3. Dial-up Networking
- XIV. Network Security and Fault Tolerance
 - 1. Security Models
 - 2. Password Security
 - 3. Data Encryption
 - 4. Firewalls and Proxy Servers
 - 5. System Fault Tolerance
 - 6. Backing Up Data
- XV. Preparing for Network Installation
 - 1. Planning and Gathering Information
 - 2. Environmental Issues
 - 3. Networking Components and Connectors
 - 4. Compatibility Issues
- XVI. Maintaining the Network
 - 1. Network Documentation
 - 2. Backup Strategies
 - 3. Virus Protection
 - 4. Patches and other Software Updates
- XVII. Troubleshooting the Network
 - 1. Exploring Troubleshooting Models
 - 2. Identifying Troubleshooting Tools



Duration: 40 hours

Schedule: Boot Camp, Week-Ends, Evenings

Delivery Format: Classroom Instructor Led

Price: \$1499 all inclusive of 40 hours training, study materials, practice exams and one exam voucher.

Retake Policy: Course can be retaken within 12 months of completion depending upon availability.

Certificate: Certificate of completion given to all students who meet the 85% attendance requirement and other course work completed during training.