



HEROTEC

NETWORK PROFESSIONAL TRAINING

CompTIA Network+

Related Certificate	CompTIA
Course ID	N+
Exam ID	N10-006
Hours	40

NE

Overview:

The CompTIA Network+ course builds on your existing user-level knowledge and experience with personal computer operating systems and networks to present fundamental skills and concepts that you will use on the job in any type of networking career. If you are pursuing a CompTIA technical certification path, the CompTIA A+ certification is an excellent first step to take before preparing for the CompTIA Network+ certification. If you are taking this course with the exam voucher, it is for exam N10-0006.

Objectives:

- Identify the basic components of network theory.
- Identify the major network communications methods.
- Identify network data delivery methods.
- List and describe network media and hardware components.
- Identify the major types of network implementations.
- Identify the components of a TCP/IP network implementation.
- Identify the major services deployed on TCP/IP networks.
- Identify the components of a LAN implementation.
- Identify the components of a WAN implementation.
- Identify major issues and technologies in network security.
- Identify the components of a remote network implementation.
- Identify major issues and technologies in disaster recovery.
- Identify major data storage technologies and implementations.
- Identify the primary network operating systems.
- Explore tools, methods, and techniques used in managing a network.
- Describe how to troubleshoot network issues.

Outlines:

- **Lesson 1: Network Theory**
 1. Networking Terminology
 2. Network Building Blocks
 3. Standard Network Models
 4. Physical Network Topologies
 5. Logical Network Topologies
 6. Topic 1F: Network Categories
- **Lesson 2: Network Communications Methods**
 1. Transmission Methods
 2. Media Access Methods
 3. Signaling Methods
- **Lesson 3: Network Data Delivery**
 1. Data Addressing and Delivery

2. Delivery Techniques

- **Lesson 4: Network Media and Hardware**

1. Bounded Network Media
2. Unbounded Network Media
3. Noise Control
4. Network Connectivity Devices
5. Wiring Distribution Components

- **Lesson 5: Network Implementations**

1. The OSI Model
2. Ethernet Networks
3. Token Ring Networks
4. Fiber Distributed Data Interface (FDDI) Networks
5. Wireless Technologies and Standards

- **Lesson 6: Networking with TCP/IP**

1. Families of Protocols
2. The TCP/IP Protocol
3. IP Address Basics
4. Custom IP Addresses
5. The IP Version 6 Protocol
6. The TCP/IP Protocol Suite

- **Lesson 7: TCP/IP Services**

1. IP Address Assignment Methods
2. Host Name Resolution
3. TCP/IP Utilities
4. TCP/IP Upper-Layer Services
5. TCP/IP Interoperability Services

- **Lesson 8: Local Area Network Infrastructure**

1. Bridges and Switches
2. IP Routing
3. Static IP Routing
4. Dynamic IP Routing
5. Control Data Movement with Filters and VLANs

- **Lesson 9: WAN Infrastructure**

1. WAN Switching Technologies
2. WAN Transmission Technologies
3. WAN Connectivity Methods
4. Voice Over Data Systems

- **Lesson 10: Network Security**

1. Computer Security Basics
2. Authentication
3. Data Encryption

4. Protect Network Traffic with IP Security (IPsec)
5. Internet Security
6. Local Security
7. Common Threats
8. Threat Mitigation Techniques
9. Intrusion Detection and Prevention
10. Educate Users

- **Lesson 11: Remote Networking**

1. Remote Network Architectures
2. Remote Access Networking Implementations
3. Virtual Private Networking
4. Remote Control Computing

- **Lesson 12: Disaster Recovery**

1. Examine Configuration Management Documentation
2. Plan for Disaster Recovery
3. Fault Tolerance Methods
4. Data Backup

- **Lesson 13: Network Data Storage**

1. Enterprise Data Storage
2. Network-Attached Storage (NAS)
3. Storage Area Network (SAN) Implementations
4. Clustering

- **Lesson 14: Network Operating Systems**

1. UNIX and Linux Operating Systems
2. Apple Mac OS X
3. Microsoft Operating Systems
4. Novell Open Enterprise Server

- **Lesson 15: Network Management**

1. Monitoring Tools
2. Network Baselining
3. Network Optimization

- **Lesson 16: Network Troubleshooting**

1. Troubleshooting Models
2. TCP/IP Troubleshooting Utilities
3. Hardware Troubleshooting Tools
4. Common Connectivity Issues

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