

Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: training@ptr.co.uk Web: www.ptr.co.uk

CompTIA Network+ Certification Support Skills 2009 Objectives

Course Description:

CompTIA Network+ validates the knowledge and skills of networking professionals. It is an international, vendor-neutral certification that recognizes a technicians ability to describe the features and functions of networking components and to install, configure and troubleshoot basic networking hardware, protocols and services. This practical "hands-on" 5-day course will teach students the fundamental principles of installing and supporting networks.

This course will prepare students to take the N10-004 CompTIA Network+ Certification exam, for the objectives released in January 2009.

CompTIA Network+ Certification has been created as a benchmark for local area networking installation and support. The qualification is endorsed by Microsoft, Novell, Cisco, Compaq, and Lotus, among other leading vendors.

This qualification is particularly recommended for students who wish to progress to the Cisco Certified Network Associate (CCNA) or Microsoft MCSE / MCSA / MCITP qualifications.

Delegates will learn how to:

- Describe the features of different network protocols and products for LANs, WANs, and wireless networks.
- Understand the functions and features of TCP/IP addressing and protocols.
- Identify threats to network resources and appropriate security countermeasures.
- Install and configure network cabling and appliances.
- Manage, monitor, and troubleshoot networks.

Pre-requisites:

This course is intended for new or intending network support technicians wishing to qualify with CompTIA Network+ Certification. It is also suitable for experienced technicians who require an industry-backed credential that validates their skills and knowledge. This course will particularly benefit students pursuing a career in network administration, as a Network Support Technician, Network Engineer, Network Administrator, or in Help Desk support.

- Taken and passed both CompTIA A+ Certification exams or have equivalent knowledge and experience.
- Six months to one year of post-A+ Certification support experience.
- Extensive experience of supporting end-users and PC-based systems

21a Peach Street Wokingham Berkshire RG40 1XJ

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Course Content:

- **Network Fundamentals**
- **Network Topologies and the OSI Model:**
 - Network Basics
 - Network Topologies
 - The OSI Model
 - Physical Layer
 - Data Link Layer
 - Network Layer
 - Transport Layer
 - Upper Layers of the OSI Model
 - OSI Model Summary
 - Network Protocols and TCP/IP
- **LAN and WLAN Technologies:**
 - IEEE 802 Standards
 - Characteristics of Transmission Media
 - Ethernet (IEEE 802.3)
 - Wi-Fi (IEEE 802.11)
- **Cabling and Connectors:**
 - Selecting Network Cable
 - Twisted Pair Cable (UTP / STP / ScTP)
 - Coaxial Cable
 - Fiber Optic Cable
 - Serial Cabling and Connectors

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- **WAN Technologies:**
 - WAN Overview
 - Switched Networks
 - Telecommunications Networks
 - Packet-switched Services
 - Local Loop Services
 - Wireless WANs

- **Addressing and Protocols**

- **Addressing:**
 - The TCP/IP Protocol Suite
 - MAC Address
 - Internet Protocol
 - IP Routing
 - Automatic Address Assignment
 - ICMP
 - IP Version 6

- **Routing Protocols:**
 - IP Routing
 - Routers
 - Routing Protocols
 - Transport Protocols:
 - Transmission Control Protocol (TCP)
 - User Datagram Protocol (UDP)
 - TCP/IP Ports
 - Name Resolution

- **Application Protocols:**
 - TCP/IP Services
 - Email (SMTP / POP3 / IMAP)
 - World Wide Web (HTTP)
 - File Transfer Protocol (FTP)
 - Telnet and Secure Shell (SSH)
 - Conferencing and VoIP Protocols

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- **Application Protocols:**
 - Simple Network Management Protocol (SNMP)
 - Network Time Protocol (NTP)
- **Security and Authentication**
- **Security Threats and Countermeasures:**
 - What Makes a Network Secure?
 - Social Engineering
 - Malware
 - Network Attack Strategies
 - Secure Network Management
 - Corporate Security Policy
 - Training
- **Network Security Appliances:**
 - Secure Network Topologies
 - Firewalls and Proxy Servers
 - Intrusion Detection Systems
- **Network Access Security and Authentication:**
 - Encryption
 - Remote Connectivity Protocols
 - Authentication Protocols
 - Network Access Control
- **Installation and Implementation**
- **Installing Network Infrastructure:**
 - Wiring Standards
 - Wiring Distribution
 - Cable Testing Tools
 - Network Adapters
 - Intranetwork and Internetwork Devices
- **Installing Wireless and Remote Networks:**
 - Setting up a Wireless Network
 - Remote Connectivity

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- **Advanced Network Infrastructure:**
 - Advanced Features of Switches
 - QoS Appliances
 - Configuring DHCP
 - Configuring DNS
 - Configuring Firewalls, Proxy Servers, and IDS
- **Management, Monitoring, Troubleshooting**
- **Configuration Management:**
 - Policies and Procedures
 - Schematics and Documentation
- **Monitoring:**
 - Network Performance Optimization
 - Network Monitoring Utilities
 - Logs
- **Troubleshooting:**
 - Troubleshooting Methodology
 - Command Line Utilities
 - Troubleshooting Connectivity Scenarios
- **Examinations**
- **Certification**
 - N10-004
 - CompTIA Network+

Course Duration:

5 Days