Hands-On

CompTIA Network+ Certification

Course Description

This course meets the NEW DoD Directive 8140 requirements and the latest version (N10-006).

Will Department of Defense (DoD) Directive 8140 replace DoDD 8570? Yes.

When will DoD 8140 take effect? It is already in effect.

Why Change from 8570 to 8140?

DoD 8140 is designed to be more flexible and inclusive than DoD 8570. DoD 8140 includes initiatives such as NIST NICE (National Initiative for Cybersecurity Education), which identifies critical KSAs (Knowledge, Skills, and Abilities) and places cybersecurity positions into 7 categories (1. Security Provision, 2. Operate & Maintain, 3. Protect & Defend, 4. Analyze, 5. Operate & Collect, 6. Oversight & Development, and 7. Investigate) consisting of 31 specialty areas.

BTS works with clients to deliver appropriate material to become CompTIA Network+ certified. Course design uses the latest texts and other materials over a one or two week period based on client needs. Time is allowed after each Instructor presentation and demonstration for student hands-on work on labs, practice exams and Network+ related drills.

BTS offers On-Site Testing and Test Administration for this course, or students can take the exam at their own leisure at a certified testing center of their choice and schedule.

Master essential data networking skills while preparing for the CompTIA Network+ certification exam (N10-006).

CompTIA's Network+ is the premier vendor-neutral networking certification. Our Network+ Prep Course is designed to provide the foundation you need not only to be productive on the job but also to be successful in more specialized topics and in your pursuit of vendor-specific certifications. Companies such as Dell, HP, Ricoh, Sharp, and Xerox recommend or require CompTIA Network+ for their networking technicians. It is a technical prerequisite option for IT technicians seeking to join the Apple Consultants Network, and is recognized by the U.S. Department of Defense.

Earning CompTIA's Network+ certification increases your value in the marketplace, providing proof of your knowledge, skills, and ability to manage, maintain, troubleshoot, install, operate, and configure basic network infrastructure. Our Network+ Prep Course points you in the right direction, allowing you to demonstrate the concepts covered on the Network+ exam in a real-world, hands-on environment. You will work through several practice exams to reinforce your knowledge. You will gain essential networking skills in labs that feature networking equipment from Cisco, Linksys, Netgear, ZyXel, and others.

In addition to preparing you for Network+ certification, this course also meets the NEW DoD 8140 training requirements.

Students Will Learn

- **Prepare for the CompTIA Network+ certification exam (N10-006)**
- **Basic network theory concepts**
- **Major communications methods**
- **Network media and hardware components**
- **Components of a TCP/IP network implementation**
- **TCP/IP addressing and data delivery methods**
- **Major services deployed on TCP/IP networks**
- **Components of a LAN implementation**
- **Infrastructure of a WAN implementation**
- **Components of remote network implementation**
- **Major issues and methods to secure systems on a network**
- **Major issues and technologies in network security**
- **Network security threats and attacks**
- **Tools, methods, and techniques used in managing a network**
- **Troubleshoot network issues**
- **And much more...**

Target Audience

Computer / Technical / Help Desk Support personnel. This course is designed for individuals interested in learning the subjects that are necessary to pass the CompTIA's Network+ certification exam N10-005.

Prerequisites

Several months of experience in the IT support industry and A+ certification or similar knowledge is beneficial but not required.

Course Outline

CompTIA Network+ certification exam (N10-006)
Module 1. Network Architecture

- 1.1 Explain the functions and applications of various network devices
- 1.2 Compare and contrast the use of networking services and applications
- 1.3 Install and configure the following networking services/applications
- 1.4 Explain the characteristics and benefits of various WAN technologies
- 1.5 Install and properly terminate various cable types and connectors using appropriate tools
- 1.6 Differentiate between common network topologies
- 1.7 Differentiate between network infrastructure implementations
- 1.8 Given a scenario, implement and configure the appropriate addressing schema
- 1.9 Explain the basics of routing concepts and protocols
- 1.10 Identify the basics elements of unified communication technologies
- 1.11 Compare and contrast technologies that support cloud and virtualization

- 1.12 Given a set of requirements, implement a basic network

Module 2. Network Operations

- 2.1 Given a scenario, use appropriate monitoring tools
- 2.2 Given a scenario, analyze metrics and reports from monitoring and tracking performance tools
- 2.3 Given a scenario, use appropriate resources to support configuration management
- 2.4 Explain the importance of implementing network segmentation
- 2.5 Given a scenario, install and apply patches and updates
- 2.6 Given a scenario, configure a switch using proper features
- 2.7 Install and configure wireless LAN infrastructure and implement the appropriate technologies in support of wireless capable devices

Module 3. Network Security

- 3.1 Compare and contrast risk related concepts
- 3.2 Compare and contrast common network vulnerabilities and threats
- 3.3 Given a scenario, implement network hardening techniques
- 3.4 Compare and contrast physical security controls
- 3.5 Given a scenario, install and configure a basic firewall
- 3.6 Explain the purpose of various network access control models
- 3.7 Summarize basic forensic concepts

Module 4. Troubleshooting

- 4.1 Given a scenario, implement the following network troubleshooting methodology
- 4.2 Given a scenario, analyze and interpret the output of troubleshooting tools
- 4.3 Given a scenario, troubleshoot and resolve common wireless issues
- 4.4 Given a scenario, troubleshoot and resolve common copper cable issues
- 4.5 Given a scenario, troubleshoot and resolve common fiber cable issues
- 4.6 Given a scenario, troubleshoot and resolve common network issues
- 4.7 Given a scenario, troubleshoot and resolve common security issues
- 4.8 Given a scenario, troubleshoot and resolve common WAN issues

Module 5. Industry standards, practices, and network theory

- 5.1 Analyze a scenario and determine the corresponding OSI layer
- 5.2 Explain the basics of network theory and concepts
- 5.3 Given a scenario, deploy the appropriate wireless standard
- 5.4 Given a scenario, deploy the appropriate wired connectivity standard
- 5.5 Given a scenario, implement the appropriate policies or procedures
- 5.6 Summarize safety practices
- 5.7 Given a scenario, install and configure equipment in the appropriate location using best practices
- 5.8 Explain the basics of change management procedures
- 5.9 Compare and contrast the following ports and protocols
- 5.10 Given a scenario, configure and apply the appropriate ports and protocols

Notes

The latest version of CompTIA Network+ Edition (N10-006).

Note This course can be delivered in an accelerated format for an advanced group that will require longer training days and additional study time and materials and /or available for Certifications, delivered in a Combo-Cert-Accelerated A+/Network/Security+ in a 5-10 day format, upon request.

Delivery Method

Instructor-led with numerous Hands-On labs and exercises. Includes official Exam and Live Testing and Certification.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

5 Days