CompTIA Network+ (N10-007)

Introduction

In this course, you will describe the major networking technologies and systems of modern networks, and be able to configure, manage, and troubleshoot modern networks. this includes physical network components and technologies, logical structures, common protocols, and network security. This course maps to the CompTIA Network+ certification exam.

You will:

- Identify basic network theory concepts and major network communications methods.
- Describe bounded network media.
- Identify unbounded network media.
- Identify the major types of network implementations.
- Identify TCP/IP addressing and data delivery methods.
- Implement routing technologies.
- Identify the major services deployed on TCP/IP networks.
- Identify the infrastructure of a WAN implementation.
- Identify the components used in cloud computing and virtualization.
- Describe basic concepts related to network security.
- Prevent security breaches.
- Respond to security incidents.
- Identify the components of a remote network implementation.
- Identify the tools, methods, and techniques used in managing a network.
- Describe troubleshooting of issues on a network.

Target Audience

This course is designed for individuals who are considering a career in information technology (IT) and who might be planning CompTIA Network +™ certification, or other similar certifications.

Prerequisites

This course assumes that you have basic knowledge of using and configuring individual workstations and simple networks. Knowledge equivalent to the CompTIA A+ certification is helpful but not necessary.

Course Content

Introduction
Course setup
Network skills pre-assessment

Chapter 1: Fundamentals

   Module A: Networking concepts

   Module B: Classifying networks

   Module C: Network models

   Module D: The troubleshooting process

Chapter 2: Physical networks

   Module A: Connection technologies

   Module B: Network devices

   Module C: Copper media

   Module D: Optical media

   Module E: Ethernet standards

Chapter 3: TCP/IP networks

Module A: IP addressing

Module B: Core protocols

Module C: Network ports and applications

Chapter 4: Internetworking

Module A: Switching

Module B: Routing

Chapter 5: Wireless LANs

Module A: Wireless networks

Module B: Wireless LAN standards

Chapter 6: Wide area networks

Module A: Internet connections

Module B: WAN infrastructure

Chapter 7: Cybersecurity principles

Module A: Goals and threats

Module B: Digital security

Module C: Transport encryption

Chapter 8: Defending networks

Module A: Network security components

Module B: Network authentication systems

Module C: Hardening networks

Chapter 9: Evolving network technologies

Module A: Network convergence

Module B: Virtual and cloud systems

Chapter 10: Network operations

Module A: Monitoring and optimization

Module B: Fault tolerance and disaster recovery

Module C: Incident response

Chapter 11: Network planning

Module A: Network policy design

Module B: Network installation

Module C: Maintenance and upgrades

Appendix A: Glossary