

Official CompTIA Content
for Instructor-Led Training:

Network+ Student Guide 2019 Update

Official CompTIA Content for Instructor-Led Training is designed with the instructor in mind, providing insights and tools on how to successfully train learners pursuing their CompTIA Network+ certification.

Overview

The Official CompTIA Network+ Instructor and Student Guide 2019 Update (Exam N10-007) is developed exclusively by CompTIA, combining market-leading content with instructor input and the latest instructional design techniques. A refreshed organization of content, additional assessments, scenario-based exercises and exclusive videos from ITProTV deliver an integrated solution for preparing students for the Network+ certification exam.

Official CompTIA Content:

- The Official CompTIA Network+ Instructor Guide 2019 Update (Exam N10-007)
- The Official CompTIA Network+ Student Guide 2019 Update (Exam N10-007)
- CompTIA CHOICE Digital Learning Platform
 - Online resources included with purchase of student or instructor guide
- The Official CompTIA Network+ LogicalLAB 2019 Update (Exam N10-007)
- CompTIA CertMaster Practice for Network+ (Exam N10-007)

New Features in the 2019 Update

- **Alignment and Consistency Across Book, Labs and Assessment:** With CompTIA developing all learning materials, the book, labs and assessments work together with a similar approach and voice ensuring that instructors and students have a cohesive “single-sourced” solution for their Network+ courses.
- **Reorganization Lessons:** Moving from 14 lessons to 16 lessons, the content sequence has been revised, with early lessons following the OSI model, before proceeding through monitoring and troubleshooting to network security concepts. The course concludes by revisiting lower layer OSI model concepts in more detail, looking at site-based implementation of cabling, wireless, WAN links, and operations management.
- **Comprehensive Activities:** Hands-on activities have been re-conceived as longer, more comprehensive, lab-style exercises. In addition, extensive review and discussion activities have been added.
- **Hands-on Practice with Virtual Labs:** LogicalLABS hosted by Learn on Demand Systems allows learning in actual software applications through a remote environment. The labs in the 2019 Update align with the new hands-on activities in The Official CompTIA Instructor and Student Guides and allow students to practice what they are learning using real, hands-on experiences. Students have 6 months of access, providing a fantastic resource for students to practice their skills.
- **Engaging Video Program by ITProTV:** New videos developed exclusively for CompTIA by ITProTV provide short, engaging demonstrations of key activities in the course. The videos provide an alternative to hands-on demonstrations.
- **Robust Assessments:** The Network+ 2019 Update provides practice questions for each lesson and a final assessment covering all lessons, more than 250 questions in total. Additionally, performance-based questions help students apply what they have learned in actual scenarios.
- **Refreshed Interior Design and Image Program:** A modernized interior design updates the presentation of content. More images have been added throughout to complement the narrative and provide visual interest.

Key Features and Benefits

- **Designed for Instructors by Instructors:** More than 50 instructors were involved in the development of Network+ Official Content providing feedback through focus groups, reviews and surveys. The result is a suite of resources that works together seamlessly to address the challenges faced by instructors and students in these courses.
- **Comprehensive Student and Instructor Resources Enhanced Through CompTIA CHOICE Platform:**
Resources to download include:
 - Course setup notes describe hardware and software requirements
 - Course-specific delivery tips with in-sights to deliver the course material
 - Presentation planners help schedule courses based on the length
 - PowerPoint slides
 - Facilitator notes in instructor manual
 - Solutions to activities and discussions
 - Video program with ITProTV
- **Rigorously Evaluated to Ensure Adequate Coverage of Exam Objectives:** CompTIA employs trusted third-party subject matter experts to review the content against the exam objectives and validate that an appropriate breadth and depth of coverage has been achieved. This process helps ensure that students using The Official CompTIA Network+ Guides are adequately prepared for the CompTIA Network+ certification exam.
- **Flexible and Customizable Based on Course Format:** Class resources can be easily configured based on modality.

Lab Options

- Labs can be delivered in the classroom with the help of course setup notes, or LogicalLABS allow students to learn in through a remote lab environment. Lab activities are available for most lessons.

Exam Prep Option

- CertMaster Practice is an online assessment and remediation tool designed to help students feel more confident and prepared for their CompTIA certification exam.

Course Overview

This course is for students who are preparing for the CompTIA Network+ certification exam N10-007.

This course is intended for entry-level computer support professionals with a basic knowledge of computer hardware, software, and operating systems who wish to increase their knowledge and understanding of networking concepts and acquire the required skills to prepare for a career in network support or administration.

Updated Resources

Labs Available:

ACTIVITY 2-4: Exploring the Lab Environment
ACTIVITY 2-5: Configuring Ethernet Networking
ACTIVITY 4-3: Configuring IPv4 Networking
ACTIVITY 4-6: Configuring IPv4 Subnets
ACTIVITY 4-10: Configuring IPv6 Networking
ACTIVITY 4-12: Configuring Address Assignments
ACTIVITY 5-4: Configuring Routing
ACTIVITY 6-3: Using Port Scanning Tools
ACTIVITY 6-6: Configuring DNS Servers
ACTIVITY 7-2: Configuring Application Protocols
ACTIVITY 8-2: Using Event Management and Performance Monitors
ACTIVITY 10-2: Configuring a NAT Firewall
ACTIVITY 11-3: Securing Appliance Administration with RADIUS Authentication
ACTIVITY 15-3: Configuring Secure Access Channels

Other additional activities in addition to the review questions include:

ACTIVITY 3-5: Scenario: Designing a Switch Topology
ACTIVITY 4-5: Scenario: Designing an IP Subnet
ACTIVITY 4-8: Scenario: Designing VLSM Subnets
ACTIVITY 5-2: Scenario: Designing a Branch Office Internetwork
ACTIVITY 8-4: Scenario: Troubleshooting Network Issues
ACTIVITY 13-4: Configuring a Wireless Router

Performance-based Questions Available:

Lesson 3: Installing and Configuring Switched Networks
Lesson 5: Installing and Configuring Routers
Lesson 9: Explaining Networking Attacks and Mitigations
Lesson 13: Deploying and Troubleshooting Cabling Solutions
Lesson 15: Comparing and Contrasting WAN Technologies



Job Roles

- Junior Network Administrator
- Computer Technician
- Network Field Technician
- Help Desk Technician
- Junior Systems Engineer
- Systems Engineer
- IS Consultant
- Network Support
- Network Field Engineer
- Network Analyst

Table of Contents:

Lesson 1 : Explaining the OSI Model and TCP/IP Models

Topic 1A: Explain OSI Model Layers
Topic 1B: Explain the TCP/IP Suite

Lesson 2 : Explaining Properties of Network Traffic

Topic 2A: Explain Media Types and Access Methods
Topic 2B: Deploy Ethernet Standards
Topic 2C: Configure and Monitor Network Interfaces

Lesson 3 : Installing and Configuring Switched Networks

Topic 3A: Install and Configure Hubs and Bridges
Topic 3B: Install and Configure Switches
Topic 3C: Compare and Contrast Network Topologies
Topic 3D: Compare and Contrast Network Types

Lesson 4 : Configuring IP Networks

Topic 4A: Configure IPv4 Addressing Components
Topic 4B: Test IP Interfaces with Command Line Utilities
Topic 4C: Configure IPv4 Addressing Components
Topic 4D: Configure Private and Public IPv4 Addressing Schemes
Topic 4E: Configure IPv6 Addressing Components
Topic 4F: Configure DHCP Services

Lesson 5 : Installing and Configuring Routed Networks

Topic 5A: Explain Characteristics of Routing
Topic 5B: Install and Configure Routers

Lesson 6 : Configuring and Monitoring Ports and Protocols

Topic 6A: Explain the Uses of Ports and Protocols
Topic 6B: Use Port Scanners and Protocol Analyzers
Topic 6C: Explain the Use of Name Resolution Services
Topic 6D: Configure DNS and IPAM Services

Lesson 7 : Explaining Network Applications and Storage Services

Topic 7A: Explain the Uses of Network Applications
Topic 7B: Explain the Uses of Voice Services and Advanced Networking Devices
Topic 7C: Explain the Uses of Virtualization and Network Storage Services
Topic 7D: Summarize the Concepts of Cloud Services

Lesson 8 : Monitoring and Troubleshooting Networks

Topic 8A: Monitor Network Interfaces and Logs
Topic 8B: Explain Network Troubleshooting Methodology
Topic 8C: Troubleshoot Common Network Services Issues

Lesson 9 : Explaining Networking Attacks and Mitigations

Topic 9A: Summarize Common Networking Attacks
Topic 9B: Explain the Characteristics of VLANs
Topic 9C: Explain the Characteristics of NAT and Port Forwarding

Lesson 10 : Installing and Configuring Security Devices

Topic 10A: Install and Configure Firewalls and Proxies
Topic 10B: Explain the Uses of IDS/IPS and UTM

Lesson 11 : Explaining Authentication and Access Controls

Topic 11A: Explain Authentication Controls and Attacks
Topic 11B: Explain the Uses of Authentication Protocols and Directory Services
Topic 11C: Explain the Uses of Port Security and NAC
Topic 11D: Implement Network Device Hardening
Topic 11E: Explain Patch Management and Vulnerability Scanning Processes

Lesson 12 : Deploying and Troubleshooting Cabling Solutions

Topic 12A: Deploy Structured Cabling Systems
Topic 12B: Deploy Twisted-pair Cabling Solutions
Topic 12C: Test and Troubleshoot Twisted-pair Cabling Solutions
Topic 12D: Deploy Coax and Fiber Optic Cabling Solutions

Lesson 13 : Implementing and Troubleshooting Wireless Technologies

Topic 13A: Install and Configure Wireless Technologies
Topic 13B: Troubleshoot Wireless Performance Issues
Topic 13C: Secure and Troubleshoot Wireless Connectivity

Lesson 14 : Comparing and Contrasting WAN Technologies

Topic 14A: Compare and Contrast WAN Core Service Types
Topic 14B: Compare and Contrast WAN Subscriber Service Types
Topic 14C: Compare and Contrast WAN Framing Service Types
Topic 14D: Compare and Contrast Wireless and IoT WAN Technologies

Lesson 15 : Using Remote Access Methods

Topic 15A: Use Remote Access VPNs
Topic 15B: Use Remote Access Management and File Transfer Methods

Lesson 16 : Identifying Site Policies and Best Practices

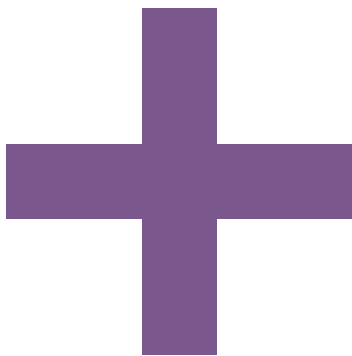
Topic 16A: Manage Networks with Documentation and Diagrams
Topic 16B: Summarize the Purposes of Physical Security Devices
Topic 16C: Compare and Contrast Business Continuity and Disaster Recovery Concepts
Topic 16D: Identify Policies and Best Practices

Appendix A: Mapping Course Content to CompTIA Network+ (Exam N10-007)

Solutions (Student Guide only, solutions are included "in line" in the Instructor Guide)

Glossary

Index



Purchase Everything in One Place

Official CompTIA Content is available on the CompTIA Store at store.comptia.org, which means partners will be able to obtain Official CompTIA Content, CompTIA CertMaster products and exam vouchers all in one place.

Please contact your CompTIA business development representative for more information.

