

CompTIA® Mobility+® (Exam MB0-001)

Course Specifications

Course Number: ELK93-031_rev1.0

Course length: 5.0 day(s)

Course Description

The mobile age is upon us. More and more people are using tablets, smartphones, and other mobile devices to accomplish things in their personal and professional lives. As businesses embrace this trend, they need to support their employees in the use of mobile devices while protecting their own assets, such as intellectual property.

If you are already a traditional network support technician, you're well on the way to having the knowledge and skills needed to support the mobile workforce. This course builds on your existing knowledge and experience to provide you with critical concepts related to over-the-air technologies, wireless networking, and mobile devices.

Course Objective: Upon successful completion of this course, you will be able to support mobile cellular and wireless devices. They will:

You will:

- Configure over-the-air technologies.
- Apply RF principles.
- Implement a wireless network infrastructure.
- Implement network infrastructure devices and services.
- Implement mobile solutions.
- Prepare the enterprise for a mobile network.
- Deploy mobile devices.
- Implement mobile device operations.
- Maintain mobile device operations.
- Deploy mobile applications and related technologies.
- Implement mobile app protocols and services.
- Implement mobile security.
- Mitigate mobile network risk.
- Implement incident response.
- Troubleshoot mobile devices and networks.

Target Student: Students taking this course are IT support personnel or prospective support personnel who have at least one year of experience working with computer networks, and who want to further develop their IT skills to include mobile device and wireless support.

This course is also for students seeking the CompTIA® Mobility+® (Exam MB0-001) certification.

Course Outline

Prerequisites: To ensure your success in this course, you should have experience working with computer hardware, networking, and Windows operating systems. You can obtain this level of skills and knowledge by taking the following Logical Operations courses:

- CompTIA® A+® Certification: A Comprehensive Approach (Exams 220-801 and 220-802)
- CompTIA® Network+® Certification (Exam N10-005)

Hardware Requirements

For this course, you will need one computer for each student and one for the instructor, plus one extra computer to be shared as a testing station. Each computer will need the following minimum hardware configuration:

- 2.4 GHz dual core CPU with 64-bit Intel Virtualization Technology (Intel VT) or Advanced Micro Devices Virtualization or (AMD-V) processor.
- 2 GB RAM minimum, 8 GB recommended.
- 120 GB hard disk, 7200 RPM Serial Advanced Technology Attachment (SATA) or better recommended.
- Video card MUST support OpenGL 2.0 or later.
- DVD-ROM drive.
- Keyboard and mouse (or other pointing device).
- 1,024 × 768 resolution 17" SVGA monitor recommended.
- Network cards and cabling for local network access.
- Internet access (contact your local network administrator).
- Projection system to display the instructor's computer screen.
- Sound card and speakers for the instructor computer.

In addition, you will need the following network hardware:

- One Netgear N300 Wireless Router or equivalent. Note that the course activities were written using this Netgear wireless router, so if you use a different wireless router, some router configuration options and procedures might be different.
- Internet connectivity.
- At least one Wi-Fi-capable laptop and one Wi-Fi-capable mobile phone must be available in the classroom.
- Optionally, you can also supply a spare Ethernet switch with sufficient ports and cables for the student computers to plug into the Netgear router's LAN.

Software Requirements

You will need the following software to run this course:

- Microsoft® Windows® 8 Professional or Microsoft® Windows® 8 Enterprise.
- A web browser.
- Genymotion Android Emulator.
- .NET Framework 3.5.
- X.509 Digital Certificate Generator Demo from <http://www.signfiles.com/apps/>.
- Microsoft® Office PowerPoint® Viewer.
- A PDF reader such as Foxit® or Adobe® Acrobat® Reader.

Course Content

Lesson 1: Configuring Over-the-Air Technologies

- Topic A: Mobile Networking Introduction
- Topic B: Evaluate and Select Cellular Technologies
- Topic C: Implement Wi-Fi Technologies

Lesson 2: Applying RF Principles

- Topic A: Apply Radio Frequency Concepts
- Topic B: Conduct a Site Survey and Analysis

Lesson 3: Implementing a Wireless Network Infrastructure

- Topic A: Choose a Network Topology
- Topic B: Describe the OSI Model
- Topic C: Implement Network Ports and Protocols

Lesson 4: Implementing Network Infrastructure Devices and Services

- Topic A: Implement a Firewall
- Topic B: Implement Connectivity Devices and Services
- Topic C: Traverse Wireless and Wired Networks
- Topic D: Implement Wireless IP Traffic
- Topic E: Configure Core Wireless Network TCP/IP Services
- Topic F: Implement Disaster Recovery

Lesson 5: Implementing Mobile Solutions

- Topic A: Create a Mobile Device Policy
- Topic B: Align Mobile Device Management to Enterprise Requirements
- Topic C: Align Mobile Service Solutions to Enterprise Requirements
- Topic D: Align Mobile Infrastructure Management to Enterprise Requirements

Lesson 6: Preparing the Enterprise for a Mobile Network

- Topic A: Implement the SDLC
- Topic B: Prepare the Infrastructure

Lesson 7: Deploying Mobile Devices

- Topic A: Manage Cellular Device Activation and Deployment
- Topic B: Configure Mobile Device Peripherals
- Topic C: Complete the Onboarding and Provision Process
- Topic D: Complete the Off-boarding and De-provisioning Process

Lesson 8: Implementing Mobile Device Operations

- Topic A: Distribute Centralized Content
- Topic B: Implement Deployment Best Practices
- Topic C: Configure Remote Capabilities

Lesson 9: Maintaining Mobile Device Operations

- Topic A: Manage Lifecycle Operations
- Topic B: Back Up, Recover, and Segregate Data
- Topic C: Stay Current with New Technologies

Lesson 10: Deploying Mobile Applications and Related Technologies

- Topic A: Choose Mobile App Types
- Topic B: Determine In-house Application Development Requirements
- Topic C: Implement Push Notification

Lesson 11: Implementing Mobile App Protocols and Services

- Topic A: Configure Mobile Applications
- Topic B: Implement Proxy and Gateway Settings
- Topic C: Implement Information Traffic Topology

Lesson 12: Implementing Mobile Security

- Topic A: Implement Encryption Methods
- Topic B: Implement Access Control
- Topic C: Implement PKI
- Topic D: Implement Security Monitoring

Lesson 13: Mitigating Mobile Network Risk

- Topic A: Identify Risks and Threats
- Topic B: Implement Mitigation Techniques

Lesson 14: Implementing Incident Response

- Topic A: Identify an Incident
- Topic B: Create and Execute a Policy-Based Response
- Topic C: Report an Incident

Lesson 15: Troubleshooting Mobile Devices and Networks

- Topic A: Implement Troubleshooting Methodology
- Topic B: Troubleshoot Device Problems
- Topic C: Troubleshoot Application Problems
- Topic D: Troubleshoot Over-the-Air Connectivity Problems
- Topic E: Troubleshoot Security Problems

Appendix A: Mapping Course Content to CompTIA Mobility+ Exam MB0-001

Appendix B: CompTIA Mobility+ Acronyms