



CompTIA Linux+ Certification

The CompTIA® Linux+™ Powered by LPI course, developed to cover CompTIA Powered by LPI exams LX0-103 and LX0-104, builds on your existing user-level knowledge and experience with the Linux operating system to present fundamental skills and concepts.

Length Days: 5 | Length Hours: 40

Prerequisites

- CompTIA Network+ Certification
- CompTIA A+ Certification

To ensure your success, we recommend you first take the following courses or have equivalent knowledge: UNIX and Linux: Fundamentals, UNIX and Linux: Advanced User, CompTIA® A+®: A Comprehensive Approach (Exams 220-801 and 220-802) (helpful, but not required), Course-specific Technical Requirements

Course Objectives

In this course, you will administer Linux. You will:

- Identify basic Linux concepts and perform basic Linux tasks.
- Manage user and group accounts.
- Manage partitions and the Linux filesystem.
- Manage various files in Linux.
- Work with Linux permissions and ownership.
- Print files.
- Manage packages.
- Manage kernel services.
- Work with the Bash shell and shell scripts.
- Manage jobs and processes.
- Manage system services.
- Configure network services.
- Configure basic Internet services.
- Implement measures to secure a Linux system.
- Manage hardware associated with Linux systems.
- Troubleshoot Linux system issues.
- Install the Linux operating system.
- Configure the GUI.

Course Outline

1 - Performing Basic Linux Tasks

- Topic A: Identify the History and Development of Linux
- Topic B: Enter Shell Commands
- Topic C: Get Help Using Linux
- Topic D: Start and Stop Linux

2 - Managing User and Group Accounts

- Topic A: Create User and Group Accounts
- Topic B: Configure User Profiles
- Topic C: Administer User and Group Accounts

3 - Managing Partitions and the Linux Filesystem

- Topic A: Create Partitions
- Topic B: Navigate Through the Linux Filesystem
- Topic C: Manage the Filesystem
- Topic D: Maintain the Filesystem

4 - Managing Files in Linux

- Topic A: Create and Edit Text Files
- Topic B: Locate Files
- Topic C: Search Text Using Regular Expressions
- Topic D: Apply Filters to Text Streams
- Topic E: Link Files
- Topic F: Back Up and Restore Files
- Topic G: Manage Databases Using MariaDB

5 - Managing Linux Permissions and Ownership

- Topic A: Modify File and Directory Permissions
- Topic B: Modify Default Permissions
- Topic C: Modify File and Directory Ownership
- Topic D: Set Special Permissions and Attributes

6 - Printing Files

- Topic A: Configure a Local Printer
- Topic B: Print Files
- Topic C: Configure Remote Printing

7 - Managing Packages

- Topic A: Manage Packages Using RPM
- Topic B: Verify Packages
- Topic C: Upgrade Packages
- Topic D: Configure Repositories
- Topic E: Manage Packages Using YUM
- Topic F: Advanced Package and Application Management

8 - Managing Kernel Services

- Topic A: Explore the Linux Kernel
- Topic B: Customize Kernel Modules
- Topic C: Create an initrd Image
- Topic D: Manage Device Drivers and Hardware Devices
- Topic E: Monitor Processes and Resources

9 - Working with the Bash Shell and Shell Scripts

- Topic A: Perform Basic Bash Shell Operations
- Topic B: Write a Bash Shell Script
- Topic C: Customize the Bash Shell
- Topic D: Redirect Standard Input and Output
- Topic E: Use Control Statements in Shell Scripts

10 - Managing Jobs and Processes

- Topic A: Manage Jobs and Background Processes
- Topic B: Manage Processes Using the Process Table
- Topic C: Delay and Detach Jobs
- Topic D: Schedule Jobs
- Topic E: Maintain the System Time

11 - Managing System Services

- Topic A: Configure System Services
- Topic B: Monitor System Logs
- Topic C: Configure Security-Enhanced Linux (SELinux)

12 - Configuring Network Services

- Topic A: Connect to a Network
- Topic B: Configure Routes
- Topic C: Configure Client Network Services
- Topic D: Manage Remote Network Systems

13 - Configuring Basic Internet Services

- Topic A: Configure Email Services
- Topic B: Control Internet Services

14 - Securing Linux

- Topic A: Implement Basic System Security
- Topic B: Secure User Accounts

15 - Managing Hardware

- Topic A: Identify Common Hardware Components and Resources
- Topic B: Configure Removable Hardware
- Topic C: Configure Disk Quotas

16 - Troubleshooting Linux Systems

- Topic A: Troubleshoot System-Based Issues
- Topic B: Troubleshoot Hardware Issues
- Topic C: Troubleshoot Network Connection and Security Issues

17 - Installing Linux

- Topic A: Prepare for Installation
- Topic B: The Linux Boot Process
- Topic C: Configure GRUB
- Topic D: Install the Operating System

18 - Configuring the GUI

- Topic A: Implement X
- Topic B: Customize the Display Manager
- Topic C: Enable Accessibility Settings in Linux