



REAL WORLD
TECHNOLOGY TRAINING & SOLUTIONS
"Training You Can Really Use"

CompTIA® Linux+™

Duration: 5 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Certification: *CompTIA® Linux+™ (Powered by LPI) —*
Exam: *LX0-103 & LX0-104*

Course Description

Linux is everywhere in IT — It is the central operating system for much of the world's IT infrastructure and forms the foundation of the popular LAMP development stack. The CompTIA Linux+ certification, powered by LPI, is your on-ramp to a range of careers. It offers a framework for acquiring working knowledge of Linux for IT professionals working as junior-level system administrators, as well as those working in Web and software development. Linux is an essential skill for working in a variety of job roles in Web, systems, and network administration. Participants will acquire the skills needed to install and support one or more distributions of the Linux operating system. They will also learn the information and skills that will be helpful as they prepare for CompTIA Linux+ exams, powered by LPI.

Target Audience

This course is intended for:

- IT and Cyber Security Professionals
- Entry-level computer support professionals with basic knowledge of computer hardware, software, and operating systems, who wish to increase their knowledge and understanding of Linux concepts and skills to prepare for a career in Linux support or administration
- Persons who wish to prepare for the course exam.

Prerequisites

To attend this course, candidates must have:

- Completed the *CompTIA A+* and *CompTIA Network+* courses or possess the equivalent knowledge
- At least twelve (12) months of Linux administrative experience.



Exam Details

Exam Code:	• LX0-103/LX0-104
Length of Exam:	• 90 Minutes
Number of Questions:	• 90/60
Passing Score:	•720 (on a scale of 100 to 900)/ •500 (on a scale of 200 to 800)
Question Format:	•Performance-based, Multiple Choice, Multiple Response & Fill-in-the-Blank/ •Multiple Choice and Multi-Response

Course Objectives

Upon successful completion of this course, attendees will be able to:

- 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
- Manage jobs and processes
- Manage system services
- Configure Linux services to provide users with network connectivity
- 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 Topics

Module 1: Familiarizing Yourself with Linux

- Review the History and Development of Linux
- Enter Shell Commands
- Get Help Using Linux
- Start and Stop Linux

Module 2: Managing User and Group Accounts

- Create User and Group Accounts
- Configure User Profiles
- Manage User and Group Accounts

Module 3: Managing Partitions and the Linux Filesystem

- Create Partitions
- Navigate through the Linux Filesystem
- Manage the Filesystem
- Maintain the Filesystem

Module 4: Managing Files in Linux

- Create and Edit Files
- Locate Files
- Search Text Using Regular Expressions
- Apply Filters to Text Streams
- Link Files
- Back-Up and Restore Files
- Manage Databases Using MySQL

Module 5: Working with Linux Permissions and Ownership

- Modify File and Directory Permissions
- Modify Default Permissions
- Modify File and Directory Ownership
- Set Advanced Permissions

Module 6: Printing Files

- Configure a Local Printer
- Print Files
- Manage Print Jobs and Queues
- Configure Remote Printing

Module 7: Managing Packages

- Manage Packages Using RPM
- Verify Packages
- Upgrade Packages
- Configure Repositories
- Manage Packages Using YUM
- Manage Packages Using the Debian Package Manager
- Manage Packages Using Source Files
- Manage Shared Libraries

Module 8: Managing Kernel Services

- Explore the Linux Kernel
- Customize Kernel Modules
- Create an initrd Image
- Manage Device Drivers
- Monitor Hardware Devices
- Monitor Processes and Resources





Course Topics *Continued*

Module 9: Working with the Bash Shell and Shell Scripts

- Perform Basic Bash Shell Operations
- Introduction to Shell Scripting
- Customize the Bash Shell
- Redirect Standard Input and Output
- Use Control Statements in Shell Scripts

Module 10: Managing Jobs and Processes

- Manage Jobs and Background Processes
- Manage Processes Using the Process Table
- Examine Delayed and Detached Jobs
- Schedule Jobs
- Maintain the System Time

Module 11: Managing System Services

- Configure System Services
- Monitor System Logs
- Configure SELinux

Module 12: Configuring Network Services

- Connect to a Network
- Configure Routes
- Configure Client Network Services
- Manage Remote Network Systems

Module 13: Configuring Basic Internet Services

- Configure Email Services
- Control Internet Services

Module 14: Securing Linux

- Examine the Basics of System Security
- Secure User Accounts
- Enable Firewall Functionality
- Implement Security Auditing
- Describe the Intrusion Detection System

Module 15: Managing Hardware

- Identify Common Hardware Components and Resources
- Configure Removable Hardware
- Configure Disk Quotas

Module 16: Troubleshooting Linux Systems

- Troubleshoot System-Based Issues
- Troubleshoot Hardware Issues
- Troubleshoot Network Connection and Security Issues

Module 17: Installing Linux

- Prepare for Installation
- Identify Phases of the Linux Boot Sequence
- Configure GRUB
- Install the Operating System
- Perform Post-Installation Tasks

Module 18: Configuring the GUI

- Implement X
- Customize the Display Manager
- Customize the Window Environment
- Enable Accessibility Settings in Linux

LABS INCLUDED