CompTIA Linux+

Powered by LPI
EXAM CODE LX0-103 AND LX0-104

Course overview

Unlike vendor-specific certifications, CompTIA Linux+ covers multiple distributions, validating skills that help prevent platform lock-in and that promote more flexible approaches to Linux system troubleshooting. After passing the two exams required for certification, candidates will have mastered the following concepts:

- System configuration
- The command line interface
- Scripting basics
- Network settings and services
- System security

Course content summary

SYSTEM ARCHITECTURE
Determine and configure hardware settings and boot the system

LINUX INSTALLATION & PACKAGE MANAGEMENT
Design and manage the hard disk and libraries

GNU & UNIX COMMANDS
Work on the command line to manage files and processes

DEVICES, LINUX FILESYSTEMS, FILESYSTEM HIERARCHY STANDARD
Create and manage partitions and file systems

SHELLS, SCRIPTING & DATA MANAGEMENT
Write scripts and perform basic SQL data manipulation

USER INTERFACES & DESKTOPS
Install and configure X11 and set up display managers

ADMINISTRATIVE TASKS
Manage user accounts and groups and automate system administration

ESSENTIAL SYSTEM SERVICES
Maintain and configure systems, and manage printing

NETWORKING FUNDAMENTALS
Configure and troubleshoot system network settings and services, and configure client side DNS

Course Contents

1 Performing Basic Linux Tasks

- Identify the key events in the history and development of Linux.
- Enter basic shell commands.
- Access help in Linux.
- Start and stop Linux

2 Managing User and Group Accounts

- Create user and group accounts.
- Configure user profiles.
- Modify user and group accounts.

3 Managing Partitions and the Linux Filesystem

- Create partitions.
- Navigate through the Linux filesystem.
- Manage the Linux filesystem.
- Maintain the Linux filesystem.

4 Managing Files in Linux

- Create a text file in Linux.
- Locate files within the Linux filesystem.
- Search text files using regular expressions.
- Apply filters to text streams.
- Manage links to a file.
- Backup and restore files.
- Manage a database using MariaDB.

5 Managing Linux Permissions and Ownership

- Modify permissions on files and directories.
- Modify default permissions applied to files and directories.
- Modify ownership of files and directories.
- Set special permissions.

6 Printing Files

- Configure a local printer.
- Format text in a file and print it.
- Configure remote printing.

7 Managing Packages

- Manage packages using the RPM package manager.
- Verify packages.
- Upgrade and refresh packages.
- Configure repositories.
- Manage packages using the YUM package manager.
- perform advanced package and application management.

8 Managing Kernel Services

- Identify the role and functions of the Linux kernel.
- Customize kernel modules.
- Create an initrd image.
- Manage device drivers.
- Monitor processes and resources.

9 Working with the Bash Shell and Shell Scripts

- Perform basic Bash shell operations.
- Write a basic shell script.
- Customize the Bash shell.
- Redirect standard input and output.
- Use control statements.

10 Managing Jobs and Processes

- Manage jobs and background processes.
- Manage processes using the process table.
- Work with delayed and detached jobs.
- Schedule jobs.
- Maintain the system time.

11 Managing System Services

- Configure system services to improve system performance.
- Monitor system logs.
- Configure Security-Enhanced Linux (SELinux).

12 Configuring Network Services

- Connect to a network.
- Configure routes.
- Configure client network services.
- Manage remote network systems.

13 Configuring Basic Internet Services

- Configure email services.
- Control Internet services.

14 Securing Linux

- Implement basic system security and encryption services.
- Secure user accounts.

15 Managing Hardware

- Identify common hardware components and resources.
- Configure removable hardware.
- Configure disk quotas.

16 Troubleshooting Linux Systems

- Use the Linux rescue environment for troubleshooting the Linux system issues.
- Troubleshoot hardware issues.
- Troubleshoot network connection and security issues.

17 Installing Linux

- Prepare for a Linux installation.
- Identify the phases of the Linux boot sequence.
- Configure the GRUB 2 boot loader.
- Install the Linux operating system.

18 Configuring the GUI

- Implement X.
- Customize the display manager.
- Enable accessibility settings.

Recommended Exam

Exam Details

Exam Codes	LX0-103	LX0-104
Exam Description	CompTIA Linux+ covers common tasks in major distributions of Linux, including the Linux command line, basic maintenance, installing and configuring workstations, and networking. Linux+ is comprised of two exams – LX0-103 and LX0-104. Candidates must pass LX0-103 before taking LX0-104.	