



Linux® Professional Institute Certification Level 1 (LPIC-1): Linux® Server Professional

Duration: 8 Days

Method: Instructor-Led

Certification: LPIC-1: Linux® Server Professional — Exams: LPI-1 101 and LPIC-1 102

Course Description

The Linux® Professional Institute (LPI) has developed its LPI-1 certification as an introductory certification for people who want to enter into careers involving Linux® technology. This certification is meant to certify that an individual has the skills necessary to install, operate and troubleshoot a Linux® system.

Topics such as the Linux® command-line tools, software management, hardware configuration, filesystems, the X Window System, the boot process, scripts, security, documentation, administration and networking will be covered in this course.

Target Audience

This course is intended for:

- Administrators
- Help-Desk Technicians
- Persons with little or no experience with Linux® who are seeking a fundamental understanding of the Linux® operating system
- Persons wishing to prepare for the LPIC-1 exams

Prerequisites

To attend this course, candidates should have:

- Work at the Linux® command line
- Perform easy maintenance tasks: help users, add users to a larger system, backup and restore, shutdown and reboot
- Install and configure a workstation (including X) and connect it to a LAN, or a standalone PC to the Internet



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Course Objectives

After completing the course, candidates will have a thorough understanding of:

Level I — LPI 101 Objectives:

- Exploring Linux® Command-Line Tools
- Managing Software
- Configuring Hardware
- Managing Files
- Booting Linux® and Editing Files

Level II – The LPI 102 Objectives:

- Configuring the X Window System, Localization and Printing
- Administering the System
- Configuring Basic Networking
- Writing Scripts, Configuring

Course Content

Chapter 1: Exploring Linux® Command-Line Tools

- Understanding Command-Line Basics
- Using Streams, Redirection and Pipes
- Processing Text Using Filters
- Using Regular Expressions

Chapter 2: Managing Software

- Package Concepts
- Using RPM
- Using Debian Packages
- Converting Between Package Formats
- Package Dependencies and Conflicts
- Managing Shared Libraries
- Managing Processes

Chapter 3: Configuring Hardware

- Configuring the BIOS and Core Hardware
- Configuring Expansion Cards
- Configuring USB Devices
- Configuring Hard Disks
- Designing a Hard Disk Layout
- Creating Partitions and Filesystems
- Maintaining Filesystems Health
- Mounting and Unmounting Filesystems

Chapter 4: Managing Files

- Managing Files
- Managing File Ownership
- Controlling Access to files
- Managing Disk Quotas
- Locating Files

Course Content, *Continued*

Chapter 5: Booting Linux® and Editing Files

- Installing Boot Loaders
- Understanding the Boot Process
- Editing Files with Vi
- Dealing with Runlevels and Initialization Process

Chapter 6: Configuring the X Window System, Localization and Printing

- Configuring Basic X Features
- Configuring X Fonts
- Managing GUI Logins
- Using X for Remote Access
- X Accessibility
- Configuring Localization and Internationalization
- Configuring Printing

Chapter 7: Administering the System

- Managing Users and Groups
- Tuning User and System Environments
- Using System Log Files
- Maintaining the System Time
- Running Jobs in the Future

Chapter 8: Configuring Basic Networking

- Understanding the TCP/IP Networking
- Understanding Network Addressing
- Configuring Linux® for a Local Network
- Diagnosing Network Connections

Chapter 9: Writing Scripts, Configuring E-Mail, and Using Databases

- Managing the Shell Environment
- Writing Scripts
- Managing E-Mail
- Managing Data with SQL

Chapter 10: Securing Your System

- Administering Network Security
- Administering Local Security
- Configuring SSH
- Using GPG