



## Enhanced Network Solutions Group

Systems Integration • Learning Solutions • CIO Consulting  
Managed Outsourcing • Healthcare Solutions • Security Solutions

7224 Engle Road - Fort Wayne, IN 46804 - Phone: (260) 432-1364 - Fax: (260) 432.3168

# CompTIA® Linux+™ Powered by LPI

LLPI Rev 09.10

## 5 days

### Description

You will acquire the skills needed to install and support one or more distributions of the Linux operating system and learn information and skills that will be helpful as you prepare for CompTIA® Linux+™ Powered by LPI exams (Exam Codes: LX0–101 and LX0–102).

### Prerequisites

- *UNIX and Linux: Fundamentals (or equivalent knowledge)*
- *UNIX and Linux: Advanced User*

### Audience

This course is intended for 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, or to prepare for CompTIA Linux+ Powered by LPI exams (Exam Codes: LX0–101 and LX0–102). A typical student in the CompTIA Linux+ Certification course should have at least 6 to 12 months of Linux experience.

### Course Outline

#### **Lesson 1: Familiarizing Yourself with Linux**

Topic 1A: Review the History and Development of Linux  
Topic 1B: Enter Shell Commands  
Topic 1C: Get Help Using Linux  
Topic 1D: Start and Stop Linux

#### **Lesson 2: Managing User and Group Accounts**

Topic 2A: Create User and Group Accounts  
Topic 2B: Configure User Profiles  
Topic 2C: Manage User and Group Accounts

#### **Lesson 3: Managing Partitions and the Linux Filesystem**

Topic 3A: Create Partitions  
Topic 3B: Navigate Through the Linux Filesystem  
Topic 3C: Manage the Filesystem  
Topic 3D: Maintain the Filesystem

#### **Lesson 4: Managing Files in Linux**

Topic 4A: Create and Edit Files  
Topic 4B: Locate Files  
Topic 4C: Search Text Using Regular Expressions  
Topic 4D: Apply Filters to Text Streams  
Topic 4E: Link Files  
Topic 4F: Back Up and Restore Files  
Topic 4G: Manage Databases Using MySQL



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### **Lesson 5: Working with Linux Permissions and Ownership**

Topic 5A: Modify File and Directory Permissions

Topic 5B: Modify Default Permissions

Topic 5C: Modify File and Directory Ownership

Topic 5D: Set Advanced Permissions

### **Lesson 6: Printing Files**

Topic 6A: Configure a Local Printer

Topic 6B: Print Files

Topic 6C: Manage Print Jobs and Queues

Topic 6D: Configure Remote Printing

### **Lesson 7: Managing Packages**

Topic 7A: Manage Packages Using RPM

Topic 7B: Verify Packages

Topic 7C: Upgrade Packages

Topic 7D: Configure Repositories

Topic 7E: Manage Packages Using YUM

Topic 7F: Manage Packages Using the Debian Package Manager

Topic 7G: Manage Packages Using Source Files

Topic 7H: Manage Shared Libraries

### **Lesson 8: Managing Kernel Services**

Topic 8A: Explore the Linux Kernel

Topic 8B: Customize Kernel Modules

Topic 8C: Create an initrd Image

Topic 8D: Manage Device Drivers

Topic 8E: Monitor Hardware Devices

Topic 8F: Monitor Processes and Resources

### **Lesson 9: Working with the Bash Shell and Shell Scripts**

Topic 9A: Perform Basic Bash Shell Operations

Topic 9B: Write a Bash Shell Script

Topic 9C: Customize the Bash Shell

Topic 9D: Redirect Standard Input and Output

Topic 9E: Use Control Statements in Shell Scripts

### **Lesson 10: Managing Jobs and Processes**

Topic 10A: Manage Jobs and Background Processes

Topic 10B: Manage Processes Using the Process Table

Topic 10C: Examine Delayed and Detached Jobs

Topic 10D: Schedule Jobs

Topic 10E: Maintain the System Time

### **Lesson 11: Managing System Services**

Topic 11A: Configure System Services

Topic 11B: Monitor System Logs

Topic 11C: Configure SELinux



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### **Lesson 12: Configuring Network Services**

- Topic 12A: Connect to a Network
- Topic 12B: Configure Routes
- Topic 12C: Configure Client Network Services
- Topic 12D: Manage Remote Network Systems

### **Lesson 13: Configuring Basic Internet Services**

- Topic 13A: Configure Email Services
- Topic 13B: Control Internet Services

### **Lesson 14: Securing Linux**

- Topic 14A: Examine the Basics of System Security
- Topic 14B: Secure User Accounts
- Topic 14C: Enable Firewall Functionality
- Topic 14D: Implement Security Auditing
- Topic 14E: Describe the Intrusion Detection System

### **Lesson 15: Managing Hardware**

- Topic 15A: Identify Common Hardware Components and Resources
- Topic 15B: Configure Removable Hardware
- Topic 15C: Configure Disk Quotas

### **Lesson 16: Troubleshooting Linux Systems**

- Topic 16A: Troubleshoot System-Based Issues
- Topic 16B: Troubleshoot Hardware Issues
- Topic 16C: Troubleshoot Network Connection and Security Issues

### **Lesson 17: Installing Linux**

- Topic 17A: Prepare for Installation
- Topic 17B: Identify the Phases of the Linux Boot Sequence
- Topic 17C: Configure GRUB
- Topic 17D: Install the Operating System
- Topic 17E: Perform Post-Installation Tasks

### **Lesson 18: Configuring the GUI**

- Topic 18A: Implement X
- Topic 18B: Customize the Display Manager
- Topic 18C: Customize the Window Environment
- Topic 18D: Enable Accessibility Settings in Linux

### **Appendix A: Mapping Course Content to the CompTIA Linux+ Powered by LPI Certification Exam Objectives**

### **Appendix B: CompTIA Linux+ Powered by LPI: Acronyms and Abbreviations**

### **Appendix C: Syntax**



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