

Curso LPI 101-102 Certification

Descripción: Este curso prepara al alumno para presentar los exámenes 101 y 102 del nivel 1, LPIC-1, del LPI . La certificación LPIC-1 del **Linux Professional Institute** valida la competencia de Linux administración a nivel Junior. El curso se basa en material importado aprobado por la LPI.

Aprenderás:

- Herramientas de la línea de comando de Linux
- Uso de expresiones regulares
- Uso de librerías compartidas
- Configuración de hardware
- Diseño del layout del disco duro
- Creación de particiones y sistemas de archivos
- Configuración del Sistema X Window
- de logins GUI
- Personalización del ambiente de escritorio
- Creación de un kernel a la medida
- Manejo del ambiente shell
- Configuración de un cargador de arranque

Audiencia: Administradores de sistemas operativos que desean pasar los exámenes de certificación 101 y 102 del LPI.

Prerrequisitos: Fundamentos de Linux.

Chapter 1 Linux Command-Line Tools

- Command-Line Basics
- Linux Shell
- Shell Configuration
- Using Environment Variables
- Getting Help
- Using Streams, Redirection, and Pipes
- Types of Streams
- Redirecting Input and Output
- Piping Data Between Programs
- Generating Command Lines
- Processing Text Using Filters
- File-Combining Commands
- File-Transforming Commands
- File-Formating Commands
- File-Viewing Commands
- File-Summarizing Commands
- Using Regular Expressions
- Understanding Regular Expressions
- Using grep
- Using sed
- Editing Files with Vi
- Vi Modes
- Basic Text-Editing Procedures
- Saving Changes
- Managing Processes
- Examining Processes Lists
- Foreground and Background Processes
- Managing Processes Priorities
- Killing Processes

Chapter 2 Managing Software

- Package Concepts
- Using RPM
- RPM Distributions and Conventions
- Upgrading to RPM
- The rpm Command Set
- Extracting Data from RPMs
- RPM Configuration Files
- RPM Compared to Other Package Formats
- Using Debian Packages
- Debian Distributions and Conventions
- The dpkg Command Set
- Using apt-get
- Using dselect
- Reconfiguring Packages

- Debian Packages Compared to Other Package
- Formats
- Configuring Debian Package Tools
- Converting between Package Formats
- Package Dependencies and Conflicts
- Real and Imagined Package Dependency Problems
- Workarounds to Package Dependency Problems
- Startup Script Problems
- Installing Programs from Source
- Obtaining and Extracting Software
- Uninstalling Locally Compiled Software
- Managing Shared Libraries
- Library Principles
- Locating Library Files
- Library Management Commands

Chapter 3 Configuring Hardware

- Configuring the BIOS and Core Hardware
- Understanding the Role of the BIOS
- IRQs
- I/O Addresses
- DMA Addresses
- The Real-Time Clock
- Boot Disks and Geometry
- Settings
- Configuring Expansion Cards
- Configuring ISA Devices
- Configuring PCI Devices
- Configuring Modems
- Functions of Modems
- Setting the RS-232 Serial Port
- Characteristics
- Winmodem Detection and Avoidance
- Using Broadband Hardware
- Configuring USB Devices
- USB Basics
- Linux USB Drivers
- USB Manager Applications
- Configuring Sound Cards
- Configuring SCSI Devices
- Varieties of SCSI
- SCSI IDs
- SCSI Termination
- Identifying SCSI Hardware

- Designing a Hard Disk Layout
- WhyPartition?
- Types of Disk Partitions
- Mount Points
- Common Partitions and Filesystems
- Creating Partitions and Filesystems
- Partitioning a Disk
- Preparing a Partition for Use
- Installing Boot Loaders
- Boot Loader Principles
- Using LILO or GRUB

Chapter 4 Managing Files and Filesystems

- Maintaining Filesystems Health
- Tuning Filesystems
- Maintaining a Journal
- Checking Filesystems
- Monitoring Disk Use
- Mounting and Unmounting Filesystems
- Temporarily Mounting or Unmounting Filesystems
- Permanently Mounting Filesystems
- Managing Files
- File Naming and Wildcard Expansion Rules
- File Commands
- Managing Links
- Directory Commands
- Managing File Ownership
- Assessing File Ownership
- Changing a File's Mode
- Setting the Default Mode and Group
- Changing File Attributes
- Managing Disk Quotas
- Enabling Quota Support
- Setting Quotas for Users
- Locating Files
- TheFHS
- Tools for Locating Files

Chapter 5 The X Window System

- Configuring Basic X Features
- X Server Options Basic X Features
- Methods of Configuring X
- XConfiguring Options
- Fine-Tuning Video Modes
- Configuring X Fonts
- Front Technologies and Fonts
- Configuring X Core Fonts
- Configuring a Front Server
- Configuring Xft Fonts
- Managing GUI Logins
- The X GUI Login System
- Running an XDMCP Server
- Configuring an XDMCP Server
- Configuring a Desktop Environment
- Desktop Environment Choices
- Configuring Linux to Run Your Desktop Environment
- Configuring the X Environment
- Configuring a Window Manager
- Using X for Remote Access
- X Client/Server Principles
- Using Remote X Clients

Chapter 6 The Boot Process and Scripts

- Managing Kernel Modules
- Obtaining Information about the Kernel and Its Modules
- Loading Kernel Modules
- Removing Kernel Modules
- Maintaining Kernel Modules
- Creating a Custom Kernel
- Kernel Version Numbering
- Obtaining the Kernel
- Configuring the Kernel
- Compiling the Kernel
- Putting Everything in Its Place
- Configuring a Boot Loader
- Using LILO as the Boot Loader
- Using GRUB as the Boot Loader
- Understanding the Boot Process
- Extracting Information on the Boot Process
- The Boot Process
- Dealing with Runlevels and the

- Initialization Process
- Runlevel Functions
- Identifying the Services in a
- Runlevel
- Managing Runlevel Services
- Checking Your Runlevel
- Changing Runlevels on a Running System
- Managing the Shell Environment
- ShellOptions
- Built-in Shell Functions
- Using Environment Variables
- Shell Configuration Files
- Linux Scripting
- Beginning a Shell Script
- UsingCommands
- Using Variables
- Using Conditional Expressions
- Using Functions

Chapter 7 Documentation and Security

- Using Local System Documentation
- Using Linux Manual Pages
- Using Package Documentation
- Finding Linux Documentation and Help on the Internet
- The Linux Documentation Project
- Additional Online Help
- Resources
- Communicating with Users
- Restricting Access by Ports
- Common Server Ports
- Configuring a Firewall
- Using Super Server Restrictions
- Disabling Unused Servers
- Package and Program Security
- Tracking Down SUID/SGID Programs
- Verifying Package Integrity
- Keeping Packages UP-to-Date
- Passwords
- Password Risks
- Choosing a Good Password
- Tools for Managing Passwords
- Configuring User-Level Security
- Configuring Mail Aliases
- Setting Login, Process, and Memory Limits

Chapter 8 Administering the System

- Managing Users and Groups
- User and Group Concepts
- Configuring User Accounts
- Configuring Groups
- Tuning User and System Environments
- Using System Log Files
- Understanding syslogd
- Setting Logging Options
- Rotating Log Files
- Reviewing Log File Contents
- Maintaining the System Time
- Linux Time Concepts
- Setting the Time Zone
- Manually Setting the Time
- UsingNTP
- Running Jobs in the Future
- The Role of cron
- Creating System cron Jobs
- Creating User cron Jobs
- Using anacron
- Usingat
- Backing Up the System
- Common Backup Hardware
- Common Backup Programs
- Backing Up a Computer
- Planning a Backup Schedule
- Preparing for Disaster: Backup Recovery

Chapter 9 Basic Networking

- Understanding TCP/IP Networking
- Basic Functions of Network Hardware
- Types of Network Hardware
- Network Packets
- Network Protocol Stacks
- TCP/IP Protocol Types
- Network Addressing
- Types of Network Address
- Resolving Hostnames
- NetworkPorts
- Configuring Linux for a Local Network
- Network Hardware Configuration
- DHCP Configuration
- Static IP Address Configuration

- Configuring Routing
- Using GUI Configuration Tools
- Hostname Configuration
- Configuring Linux as a PPP Client
- Making Basic PPP Connections
- Using Supplemental PPP Tools
- Diagnosing Local and PPP Connections
- Testing Basic Connectivity
- Tracing a Route
- Checking Network Status
- Examming Raw Network Traffic
- Using Additional Tools
- Using a Super Server
- The Role of a Super Server
- Configuring inetd
- Configuring xinetd
- Configuring Printing
- The Linux Printing Architecture
- Undersnding PostScrip and
- Ghostscrip
- Running a Printing System
- Configuring BSD LPD and LPRng
- Configuring CUPS
- Printing to Windows or Samba
- Printers
- Monitoring and Controlling the
- Print Queue
- Samba Security Considerations
- Using a Forwarding DNS Server
- DNS Server Basics
- Setting DNS Optionsfor Your
- Network
- Using a Forwarding DNS Server
- BINDSecurity Considerations
- Configuring SSH
- SSH Basics
- Setting SSH Options for Your
- System
- SSH Security Considerations

Chapter 10 Managing Servers

- Configuring Sendmail
- E-Mail Basics
- Setting Sendmail Options for
- Your System
- Managingthe Mail Queue
- Sendmail Security
- Considerations
- Configuring Apache
- Apache Basics
- Setting Apache Options for Your
- System
- Apache Security Considerations
- Configuring an NSF Server
- NSF Basics
- Creating File Exports
- Mounting NFS Exports
- NFS Security Considerations
- Configuring Samba
- Samba Basics
- Using Samba as a Server

Duración aproximada: 60 horas (2 semanas de Lunes a Viernes de 9:00 a 15:00 horas)

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