

Linux Server Administration

This intermediate Linux training covers configuring, monitoring, and supporting Linux servers. You'll learn to manage packages, users, groups, services, and network connectivity. Topics include managing .deb and .rpm packages, configuring APT/YUM repositories, handling data transfers, testing network connectivity, and using tools like Systemctl and SysV for service management.

[CBT Nuggets course material](#) →

WEEK 1

Understand Linux Fundamentals

151 min.

Introduction	1
FHS Basics	1
FHS System Files and Directories	1
The Dev Directory	1
The Proc Directory	1
The Sys Directory	1
FHS User Files and Directories	1
FHS System Binaries and Programs	1

Understand the Linux Boot Process and Hardware

Overview	1
Introduction	1
Partition Tables and Firmware	1
External Hardware	1
Understanding the Boot Process	1
The Bootloader	1
Boot Sources	1
Kernel Panic	1

Understand Package Compilation and Storage Concepts

Overview	1
Introduction	1
Understanding Source Code	1
Compiling from Source on Ubuntu	1
Compiling from Source on Rocky Linux	1
RAID	1
Storage Types	1

FUSE 1

Edit Files on Linux Systems

Overview 1

Introduction 1

Sed 1

Awk 1

Printf 1

Nano 1

Understanding Vim 1

Editing Files with Vim 1

Compress, Backup and Archive Files

Overview 1

Introduction 1

Compression with Gzip and Bzip2 1

Compression with Xz and Zip 1

Creating Archives with Tar 1

Piping and Redirection 1

Creating Archives with CPIO 1

Creating Backups with dd 1

Understand File and Directory Operations

Overview 1

Introduction 1

Displaying Directories 1

Changing into Directories 1

Making and Removing Directories 1

Touching Files and Concatenation 1

Copying Files and Directories 1

Moving Files and Directories 1

Manage and Transfer Files

Overview 1

Introduction 1

Creating Hard Links and Soft Links 1

Inspecting Metadata 1

Transferring Files with Rsync 1

Transferring Files with SCP 1

Transferring Files with SFTP 1

Making Connections with Netcat 1

Understand Partitions and Monitor Storage

Overview 1

Introduction 1

Lab Preparation 7

Creating Partitions with fdisk 11

Creating Partitions with Parted 9

Additional Partition Utilities 10

Enumerating Disk Usage 6

Storage Hardware Statistics 5

Create and Mount Filesystems

Overview 1

Introduction 1

EXT Filesystem Basics 1

EXT Tools 1

BTRFS and XFS Filesystems 1

Swapping	1
Mounting	1
Automounting with fstab	1
Mounting with systemctl	1

Understand Logical Volume Management & LUKS

Overview	1
Introduction	1
LVM Basics	1
Preparing the Disks	1
Initialising the Physical Volume	1
Creating the Volume Group	1
Creating Logical Volumes	1
Exploring LVM Commands	1
LUKS Encryption with Cryptsetup	1

Understanding Network Storage and Shares

Overview	1
Introduction	1
NFS Basics	1
Creating an NFS Server	1
Creating an NFS Client	1
Persistently Mounting an NFS Share	1
Sharing with SMB	1
SMB Authentication	1

Manage and Schedule Services

Overview	1
Introduction	1

Systemctl Basics	1
Exploring Systemctl Commands	1
Cron Basics	1
Cron Directories	1
User-Defined Cronjobs	1
Scheduling with At	1

WEEK 2

Manage Linux Processes

61 min.

Overview	1
Introduction	1
Understanding Processes	1
Top	1
Listing Open Files	1
Understanding Process Signals	1
Job Control	1
Managing Process Priorities	1

Manage Network Interfaces

Overview	1
Introduction	1
The "ifconfig" Command	1
Managing the Hostname	1
Understanding ARP	1
Routing	1
Network Manager	1
Exploring the "ip" and "ss" Commands	1

Understand Name Resolution

Overview	1
Introduction	1
DNS Basics	1
DNS Records	1
The "nsswitch.conf" File	1
Setting DNS Servers	1
DNS Tools	1

Monitor Networks

Overview	1
Introduction	1
Pinging Hosts	1
Traceroute and MTR	1
TCPDump	1
Wireshark	1
Netstat	1
Transferring Data Over The Network	1

Understand Package Management

Overview	1
Introduction	1
Understanding dpkg	1
Installing Packages with APT	1
Understanding RPM	1
Managing Packages with YUM	1
Package Management with DNF	1
Zypper	1

Packages, System Configurations & Localization

Overview	1
Introduction	1
Examining RPM and DEB Packages	1
Application Containers and Snap	1
Flatpak and AppImage	1
System Updates	1
Updating Configuration Files	1
Localization	1

Configure Kernel Options and System Services

Overview	1
Introduction	1
Kernel Management	1
Network Time Protocol	1
Understanding Logging	1
Systemd Journaling	1