

# LINUX ADMINISTRATION AND SUPPORT

Course number : 139

## Overview

Leverage the flexibility and scalability of your Linux OS to meet your organization's critical and ongoing IT needs. In this Linux administration and support training course, you learn to build, manage, and fine tune your Linux, Red Hat, CentOS, Debian, or SUSELinux distribution, as well as manage the day-to-day responsibilities of your role as a Linux administrator.

## What you'll learn

- Design, configure, and support Linux servers
- Control and troubleshoot the boot process
- Attach local storage and create file systems
- Deploy software components from source and binary packages

## Who should attend

## Pre-requis

- Practical skills in the Linux Operating system at the level of:
  - Linux Introduction, or
  - UNIX Introduction
- Must be comfortable with Linux command line, including vi text editor and standard file manipulation utilities

## SOFTWARE:

- This course uses Red Hat Enterprise Linux
- Concepts taught are applicable to all Linux distributions

## Outline

### [Designing and Configuring a Linux Server](#)

#### Configuring open–source systems

- The roles of an administrator

- Open–source licensing
- Acquiring your Linux distribution

## **The System Design**

- Structuring the file system
- Selecting software packages
- The /etc configuration hierarchy

## **Booting Linux**

### **Managing the boot process**

- Following the boot sequence
- Controlling services with systemctl

### **Rescuing an unbootable system**

- Troubleshooting a boot loader
- Recovering with rescue media

## **Controlling and Monitoring User Processes**

### **Users and groups**

- Enforcing access control policy with Pluggable Authentication Modules (PAM)
- Assigning users to groups
- Establishing and modifying accounts

### **Process control and logging**

- ps
- pstree
- top
- vmstat
- Examining the /proc file system
- Signaling processes with kill and pkill
- Capturing important events with journalctl
- Meeting compliance requirements with journald and syslog

## **Managing File Systems**

### **Device and volume management**

- Installing new disks
- Establishing and extending logical volumes

## **Mounting file systems**

- Creating and tuning journaled file systems
- Attaching to network file servers

## **Ensuring availability**

- Backing up and restoring data
- Archiving system configuration

## **Adding and Updating Software**

### **Managing software packages**

- Manipulating portable tar archives
- Installing software with Red Hat Package Manager (RPM) to blend Red Hat with CentOS and other Linux distributions

### **Building software from source**

- Working with SRPMs and packaging binary RPMs
- Resolving dependency issues with yum

## **Configuring Networks**

### **Connecting to an IP network**

- Setting IPv4 addresses and netmasks
- Configuring and testing IPv6 connectivity

### **Controlling network services**

- Providing multiple websites with Apache virtual hosting
- Securing services with access control

## **Supporting Print and File Services**

### **Service for UNIX and Mac OS X clients**

- Offering local and network print services
- Sharing files with NFS

### **Service for Windows clients**

- Emulating Windows services with Samba
- Authenticating users

## **The Linux Kernel**

### **Kernel building and configuration**

- Probing the PCI bus with lspci
- Discovering new hardware with sysfs
- Inserting new device drivers
- Determining required functionality

### **Running high-performance clusters**

- Balancing network load with Linux Virtual Server (LVS)
- Ensuring high availability with keepalived

## **Schedule**

**Location Dates Status**

## **Tuition**

**IN CLASSROOM OR ONLINE PRIVATE TEAM TRAINING**

**STANDARD \$3895**

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## **FAQ**

## **Certification**