



## Linux System Administrator Part Two

- 5 Days
- Lecture and Hands-on Labs

### Course Overview

Linux System Administrator Part Two (RH134) progresses the RHCSA certification journey for IT practitioners who have completed Red Hat System Administration I. It delves further into essential Linux administration capabilities, focusing on advanced storage setup, the deployment and installation of Red Hat Enterprise Linux, securing systems via SELinux, handling scheduled tasks, overseeing the startup sequence and system diagnostics, elementary performance optimization, and enhancing command-line efficiency through scripting and automation. This curriculum is designed with the assumption that participants have undergone Linux System Administrator Part One (RH124).

This is the course equivalent of Red Hat Administration II. Review this course online at <https://www.alta3.com/courses/rh134>

### Who Should Attend






- Technical professionals in Linux
- Linux professionals looking to learn about Linux enterprise or cloud systems administration

### What You'll Learn





- Deploy Red Hat Enterprise Linux through scalable installation techniques.
- Navigate and secure files, file systems, and network configurations.
- Implement automation and scripting via the shell.
- Organize and administer storage solutions, including logical volumes and file systems.
- Enhance and regulate security measures and access controls.
- Oversee system boot procedures and service management.
- Operate and manage containerized services on a Red Hat Enterprise Linux environment.

### Outline




#### Improve Command Line Productivity

-  Lecture: Bash Shell Mastery
-  Lecture + Lab: Advanced Command Line Operations and Redirection
-  Lecture + Lab: Text Processing with grep, awk, and sed
-  Lecture + Lab: Vim: A Modal Text Editor
-  Lecture + Lab: Bash Shell Conditional Logic, Loops, Variables and Arguments

#### Scheduling Tasks

-  Lecture: Automating and Scheduling Tasks
-  Lecture + Lab: One Time Scheduling with at
-  Lecture + Lab: Recurring Tasks with cron and crontab
-  Lecture + Lab: Scheduling Complex Sequences with systemd Timers





## Analyze and Store Logs

-  Lecture: Understanding System Logs
-  Lecture + Lab: Using journalctl to Query the systemd Journal
-  Lecture + Lab: Configuring Log Rotation with logrotate and Preserving Logs

## Archiving and Transferring Files

-  Lecture: File Compression and Archiving
-  Lecture + Lab: Creating and Extracting Archives with tar, gzip, bzip2, and xz
-  Lecture + Lab: Securely Copying Files Between Systems using scp, rsync, and sftp





## System Performance Tuning

-  Lecture: Performance Monitoring and Management
-  Lecture + Lab: Identifying Resource-Intensive Processes with top and ps
-  Lecture + Lab: Adjusting Process Priority using nice, and renice
-  Lecture + Lab: Configuring System Tuning Profiles with tuned


## SELinux Security Management

-  Lecture: SELinux Basics
-  Lecture + Lab: Understanding SELinux Modes
-  Lecture + Lab: Managing SELinux Contexts for Files and Processes




## Logical Volume Management

-  Lecture: LVM Management
-  Lecture + Lab: Managing Physical Volumes and Volume Groups
-  Lecture + Lab: Creating, Extending, and Removing Logical Volumes
-  Lecture + Lab: Resizing File Systems with resize2fs, and xfs\_growfs





## Network-Attached Storage

-  Lecture: NFS Configuration
-  Lecture + Lab: Setting up an NFS Server and Sharing Directories

## Controlling the Boot Process

-  Lecture: Boot Process Management
-  Lecture + Lab: Booting into Different System Targets (multi-user, graphical, rescue)
-  Lecture + Lab: Interrupting the Boot Process for Recovery

## Network Security Management

-  Lecture: Firewall and SELinux for Network Security
-  Lecture + Lab: Configuring Firewall Rules using firewall-cmd
-  Lecture + Lab: Securing Services with Custom Firewall Zones
-  Lecture + Lab: SELinux Rules for Network Ports and Services

## Running Containers

-  Lecture: Container Management
-  Lecture + Lab: Installing and Configuring Podman for Container Management
-  Lecture + Lab: Configuring Containers to Run as systemd Services
-  Lecture + Lab: Attaching Persistent Storage to Containers

## Prerequisites

- Basic technical skills
- Complete RH124