

Course Description: The RHCE Rapid Track Course (RH300) provides a fast-track preparation for the Red Hat Certified Engineer (RHCE) exam for experienced Linux system administrator already familiar with many concepts covered in this class. This is a fast-paced course that combines our Red Hat Linux System Administration (RH133) and Red Hat Linux Networking and Security Administration (RH253) courses, normally eight days of training, into a single five-day course.

This course includes a RHCE exam on the final day of the course. An RHCE certification is earned by IT professionals who have demonstrated the ability to configure and secure standard networking services as well as command of the core system administration skills tested at the RHCT level.

Who Should Attend: This course is for experienced Linux system, network, and security administrators who want to hone their skills.

Prerequisites: Students should have taken Red Hat Linux Networking and Security Administration (RH253) or be experienced Red Hat Enterprise Linux administrators with equivalent experience.

Benefits of Attendance: Upon completion of this course, students will be able to:

- Install and configure Red Hat Enterprise Linux.
- Understand limitations of hardware.
- Configure networking and file systems.
- Configure the X Window System.
- Configure security, set up common network (IP) services, carry out diagnostics and troubleshooting, and perform essential Red Hat Enterprise Linux system administration.

Course Outline:

Unit 1 - Automated Installation and Virtualization

Perform an automated installation of Red Hat Enterprise Linux
Create a para-virtualized user domain under Xen

Unit 2 - Package Management

Manage software on system using yum, Red Hat Network, and rpm

Unit 3 - Administrative Access and System Services

Configure and access various consoles
Escalate privileges
Secure OpenSSH service with keys
Manage system logging, printers, task automation and time synchronization

Unit 4 - System Initialization and Troubleshooting

Define boot process, recover system, and manage service startup
Utilize the rescue environment of anaconda

Unit 5 - Kernel and Network Configuration

Explore kernel modules and variants, tune kernel parameters, and manage devices
Configure dynamic and static network settings for IPv4

Unit 6 - Filesystem Management

Expand storage by adding new filesystems and swap space
Configure autofs for on-demand network storage
Manage filesystems using Software RAID and Logical Volume Management

Unit 7 - User Administration

Create, modify and delete users, groups, and policy
Establish collaborative group directories
Protect users and groups through ACLs and quotas

Unit 8 - Advanced Account Management

Revisit user administration by connecting to network directory services like NIS and LDAP
Manage local system security utilizing Pluggable Authentication Modules (PAM)

Unit 9 - Securing Data and SELinux

Review digital certificates and OpenSSH
Implement and troubleshoot Security Enhanced Linux (SELinux)

Unit 10 - Network-level Access Controls: Netfilter

Protect the system using a packet filtering host-based firewall

Unit 11 - Service-level Access Controls: TCP Wrappers

Protect services using TCP Wrappers

Unit 12 - Web Services

Configure the Apache web server
Extend web server utilizing virtual hosting
Configure the Squid web proxy cache

Unit 13 - Network Infrastructure Services

Centralize logging
Distribute network addresses with a DHCP server

Establish name resolution through caching and slave DNS server utilizing BIND

Unit 14 - Network File Sharing Services

Set up an FTP server with vsftpd
Share files with an NFS server
Network with Windows systems utilizing Samba

Unit 15 - Mail Services

Switch MTAs
Configure an MTA utilizing postfix
Implement mail retrieval using POP3/POP3S/IMAP/IMAPS through dovecot