

## **RH300 Red Hat RHCE Rapid Track w/RHCE Exam**

### **Course Summary**

#### **Description**

This course provides intensive hands-on training on Red Hat Linux and includes the Red Hat Certified Engineer (RHCE) Certification on the last day.

#### **Topics**

- Hardware and Installation
- The Boot Process
- Linux Filesystem Administration
- RPM and Kickstart
- User Administration
- System Administration Tools
- Kernel Services and Configuration
- The HTTP Service
- Network File Sharing Services
- Domain Name Service
- Electronic Mail
- xinted, OpenSSH and DHCP
- The X Window System
- Securing Services
- Troubleshooting
- RHCE Exam

#### **Audience**

This course is designed for Linux or UNIX systems administrators who have significant real world experience and who want a fast track course to prepare for the RHCE Exam.

#### **Prerequisites**

Students should have taken the following Red Hat Courses: RH033, RH133, RH253 or have significant Linux or UNIX experience with systems administration

#### **Duration**

Five days

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### **Course Outline**

- I. Hardware and Installation**
  - A. Hardware compatibility
  - B. The Red Hat Installer
  - C. Configuring Hard Drives and filesystems
  - D. RAID
  - E. LVM
  - F. Firewall configuration
  - G. SELinux configuration
  - H. Validating the installation
- II. The Boot Process**
  - A. Sequence of the boot process
  - B. BIOS initialization
  - C. Kernel initialization
  - D. Controlling services
- III. Linux Filesystem Administration**
  - A. Hard Drive partitioning
  - B. Creating filesystems
  - C. The Automounter
  - D. Access control lists
  - E. Controlling SELinux
- IV. RPM and Kickstart**
  - A. RPM queries and verification
  - B. Red Hat Network
  - C. Remote administration
  - D. Configuring a Network Installation Server
  - E. Using kickstart to automate installation
- V. User Administration**
  - A. Creating and maintaining user accounts and groups
  - B. Creating group directories
  - C. Pluggable authentication modules,
  - D. Network authentication configuration
  - E. NIS
  - F. LDAP
  - G. Configuring quotas
- VI. System Administration Tools**
  - A. Interface configuration files
  - B. CUPS printing system
  - C. The cron subsystem
  - D. Maintaining and monitoring system logs
  - E. Using Kickstart to automate installations
- VII. Kernel services and Configuration**
  - A. Kernel modules
  - B. /proc Filesystem
  - C. Advanced partitioning RAID & LVM
  - D. Converting LVM1 to LVM2
- VIII. The HTTP Service**
  - A. Apache Web Server
  - B. Virtual Hosts
  - C. The Squid Web Proxy Cache
- IX. Network File Sharing Services**
  - A. Configuring an NFS server
  - B. The File Transfer Protocol
  - C. Samba Services
  - D. Samba Client Tools
- X. Domain Name Service**
  - A. Understanding DNS
  - B. The Berkeley Internet Name Domain (BIND)
  - C. Zone creation
  - D. Delegating subdomains
  - E. BIND utilities
- XI. Electronic Mail**
  - A. Mail Transport Agents
  - B. Sendmail configuration files
  - C. Debugging sendmail
  - D. Postfix: alternative Mail transport agent
  - E. Configuring postfix

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### **Course Outline (cont'd)**

#### **XII. xinetd, OpenSSH and DHCP**

- A. Configuring the xinetd daemon
- B. The OpenSSH Server
- C. DHCP Server

#### **XIII. The X Window System**

- A. X11 and the Server/Client Relationship
- B. Xorg server Setup
- C. Configuration utilities
- D. Running remote applications.

#### **XIV. Securing Services**

- A. TCP\_wrappers to secure services
- B. Packet filtering
- C. Creating netfilter rules
- D. Network Address translation
- E. Netfilter Rule Persistence

#### **XV. Troubleshooting**

- A. Strategies
- B. Filesystem corruption
- C. Checking
- D. Recovery run levels
- E. The rescue environment.

#### **XVI. RHCE Exam:**

- A. Eight (8) Hour Exam