RH301 Red Hat Linux Rapid Track Course

Course Summary

Description

RH301 Red Hat Linux Rapid Track Course provides the course content of the RH300 RHCE Rapid Track Course, but does not include the certification exam. RH301 is designed for UNIX- and Linux-experienced users, networking specialists, and system administrators. This course provides intensive hands-on training on Red Hat Enterprise Linux 5. Those who are interested in taking the rapid track course followed immediately by the RHCT certification exam may wish to consider RH300.

Objectives
At the end 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
- Perform essential Red Hat Enterprise Linux system administration

Topics

- Package Management
- System Initialization and Kernel Services
- System Services and Security
- Filesystem Management
- User Administration
- Installation and Virtualization
- Network Configuration

- Network Security
- Network Infrastructure Services
- Web Services
- Network File Sharing Services
- Mail Services
- Troubleshooting

Audience

This course is designed for UNIX or Linux system administrators who have significant real-world experience with UNIX or Linux systems administration and some experience setting up key networking services such as HTTP, DNS, NIS, DHCP, and who want a fast-track course to prepare for the RHCE Exam.

Prerequisites

- RH033 Red Hat Linux Essentials
- RH131 Red Hat Linux System Administration
- RH133 Red Hat Linux System Administration (and RHCT Exam)
- RH253 Red Hat Linux Networking and Security Administration
- Equivalent experience with UNIX; LAN/WAN fundamentals Internetworking with TCP/IP, knowledge or experience setting up NFS, HTTP, DNS, FTP, NIS, DHCP, and other networking services, and security

Duration

Four days

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Course Outline

I. Package Management
A. Manage software on system using yum, Red Hat Network, and rpm

II. System Initialization and Kernel Services
A. Define boot process, recover system, and manage service startup
B. Explore kernel modules and variants, tune kernel parameters, and manage devices

III. System Services and Security
A. Configure and access various consoles to manage system logging, printers, and task automation
B. Manage local system security utilizing Pluggable Authentication Modules (PAM) and Security Enhanced Linux (SELinux)

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

V. User Administration
A. Create, modify and delete users, groups, and policy
B. Escalate privileges
C. Establish collaborative group directories
D. Protect users and groups through ACLs and quotas

VI. Installation and Virtualization
A. Perform both interactive and automated installations of Red Hat Enterprise Linux
B. Install the xen environment and create a para-virtualized user domain running Red Hat Enterprise Linux

VII. Network Configuration
A. Configure dynamic and static network settings for both IPv4 and IPv6
B. Secure OpenSSH service with keys

C. Revisit user administration by connecting to network directory services like NIS and LDAP

VIII. Network Security
A. Protecting services using TCP Wrappers
B. Protecting the system using a packet filtering host-based firewall

IX. Network Infrastructure Services
A. Centralize logging
B. Distribute network addresses with a DHCP server
C. Maintain time synchronization with NTP
D. Establish name resolution through caching and slave DNS server utilizing BIND

X. Web Services
A. Configure the Apache web server
B. Extend web server utilizing virtual hosting
C. Configure the Squid web proxy cache

XI. Network File Sharing Services
A. Set up an FTP server with vsftpd
B. Share files with an NFS server
C. Network with Windows systems utilizing Samba

XII. Mail Services
A. Switch MTAs
B. Configure an MTA with sendmail and postfix
C. Implement mail retrieval using POP3/POP3S/IMAP/IMAPS through dovecot

XIII. Troubleshooting
A. Explore troubleshooting methodologies while defining standard things to check
B. Maintain system from different runlevels
C. Utilize the rescue environment of anaconda