RH133 Red Hat Linux System Administration

Course Summary

Description

This course focuses on skills in systems administration on Red Hat Linux, to a level where you can attach and configure a workstation on an existing network. This course provides intensive hands-on training on Red Hat Linux and includes the Red Hat Certified Technician exam on the final day.

Topics

- Installation
- System Initialization and Services
- Kernel Services and Configuration
- Filesystem Management
- Network Configuration
- RPM and Kickstart

- User Administration
- Printing and Administration Tools
- The X Window System
- Advanced Filesystem Management
- Troubleshooting
- RHCT Exam

Audience

This course is designed for Linux or UNIX users who understand the basics of Red Hat Linux and desire further technical training to begin the process of becoming a system administrator.

Prerequisites

Students should have taken the RH033 Red Hat Linux Essentials for Windows and other Operating System Users course or have equivalent experience.

Duration

Five days

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Course Outline

I. Installation
- A. Hardware & Network Configuration Overview
- B. Installation
- C. Firewall Set up
- D. SELinux Installation and Controlling
- E. Installation Validation
- F. Post-Install Configuration

II. System Initialization and Services
- A. Boot Sequence
- B. BIOS Initialization
- C. Boot Loader Components
- D. Controlling Systems GRUB and grub.conf
- E. Kernel Initialization
- F. Daemon Processes
- G. Virtual Consoles
- H. System shutdown

III. Kernel Services and Configuration
- A. Kernel Module configuration
- B. System Monitoring
- C. General Hardware Resources
- D. System Bus Support
- E. System Monitoring & Process Control

IV. Filesystem Management
- A. System Initialization
- B. Device Recognition
- C. Managing Disk Partitions
- D. Filesystem Creation
- E. Mount Options and Configuration
- F. The Auto-Mounter
- G. Virtual Memory files
- H. Filesystem Maintenance

V. Network Configuration
- A. Device Recognition
- B. network Interfaces
- C. Interface Configuration files
- D. Configuration Files & Utilities
- E. Binding Multiple IP Addresses
- F. DNS Client Configuration & Utilities
- G. DHCP/BoOTP
- H. Network Diagnostics

VI. RPM and Kickstart
- A. The RPM Way
- B. RPM Package Manager
- C. Installing and Removing Software
- D. RPM Queries
- E. Remote Administration
- F. Red Hat Network (RHN)
- G. Network Installation Server
- H. Using KickStart to Automate Installation

VII. User Administration
- A. User Policy Considerations
- B. User Account Database
- C. Group Administration
- D. Login Shell Scripts
- E. Network Users
- F. LDAP Client Configuration
- G. Linux File Permissions Controlling SELinux
- H. Access Control Lists

VIII. Printing and Administration Tools
- A. Common Unix Printing System (CUPS)
- B. System crontab Files
- C. System Logging syslog Configuration
- D. Remote Backups

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Course Outline (cont'd)

IX. The X Window System
   A. Xorg Server Design & Configuration
   B. Server & Client Relationship
   C. Configuration Utilities
   D. Remote X Sessions

X. Advanced Filesystem Management
   A. Software RAID Configuration and Recovery
   B. Converting LVM1 to LVM2
   C. Creating Logical Volumes
   D. The Linux Quota System

XI. Troubleshooting
   A. Basic Guidelines for troubleshooting
   B. The Rescue Environment

XII. RHCT Exam
   A. Four (4) Hour exam