

Red Hat Linux Network Administration Training Course Outline

Course Description:

Looking for a Red Hat Linux networking training course? Want to learn Red Hat Linux networking for a new or existing career? This training course provides intensive hands-on Red Hat Linux network administration training. You will learn about many different networking servers such as Apache Httpd and Samba. We will discuss various utilities to enable you to setup and maintain networking on a Linux server. This class is designed to prepare you to successfully take the Red Hat Certified Engineer (RHCE) exam.

Course Prerequisites:

Students need to have taken the RH133 - Red Hat Linux System Administration Training class or have similar experience in managing a Linux server or Linux networking.

Course Objectives:

As a result of taking this course, you will be able to:

- Describe machine identity with DNS and DHCP
- Use file sharing with FTP, NFS and Samba
- Administer Users
- Implement email with Sendmail and Postfix
- Use httpd and Squid
- Install firewalls and system monitoring
- Implement user security
- Troubleshoot network problems

Course Certification:

This course maps to Red Hat's RH253 course. Upon completing this course, along with the Red Hat Essentials and Red Hat Linux System Administration, you will be prepared to take the RH302 Red Hat Certified Engineer Exam.

Course Outline:

Module 00: Course Introduction

Module 01: Installation

- What Hardware is supported
- Introduction to Disk Partitioning
- Going through the installation Process Demo
- Final Steps
- Demo: Red Hat Enterprise Linux Installation

Module 02: Introduction to Networking

- Starting and Stopping the Network
- Managing Services
- xinetd
- Demo: Managing Services and Introduction to xinetd

Module 03: DNS

- Overview of DNS and BIND
- DNS Lookup Utilities
- BIND configuration
- Demo: DNS Configuration

Module 04: DNS Part 2

- Zone Configuration
- Domain Configuration
- Demo: DNS Zone Files

Module 05: DHCP

- Overview of DHCP
- DHCPD configuration
- Demo: Lab Solutions

Module 06: Network File Sharing Services

- FTP
- NFS
- NFS server
- Demo: FTP and NFS

Module 07: Windows File Sharing

- Samba
- Smbd
- Demo: Samba Server

Module 08: User Administration Part 1

- Create/delete/modify users
- User policy
- Escalate privileges
- Demo: GUI User Administration

Module 09: User Administration Part 2

- SGID and SUID
- Demo: SUID, SGID and sticky bits

Module 10: User Administration Part 3

- ACLs - access control lists

- PAM - pluggable authentication modules
- Demo: Access Control Lists (ACLs)
- Demo: Remote authentication

Module 11: User Administration Part 4

- Quotas
- Demo: Quotas
- Demo: Lab Solutions

Module 12: Email Services Part 1

- Create/delete/modify users
- User policy
- Escalate privileges
- SGID and SUID
- Email overview
- Sendmail
- Sendmail configuration file
- Using m4 to make life easier
- Demo: Configuring Sendmail

Module 13: Email Services Part 2

- Email protocols
- Squirrelmail
- Email clients
- Sendmail vs. postfix
- Postfix configuration file
- Demo: Dovecot and squirrelmail

Module 14: HTTP and Squid Part 1

- Overview of HTTP
- Apache configuration
- Virtual hosts
- Demo: Apache Configuration

Module 15: HTTP and Squid Part 2

- Implementing SSL
- Squid proxy service
- Demo: Lab solutions

Module 16: Routers, Firewalls and Monitoring Part 1

- Linux as a firewall
- Multiple NICs, multiple IP addresses
- Routes, IP forwarding
- Demo: Network Configuration

Module 17: Routers, Firewalls and Monitoring Part 2

- iptables
- Packet sniffing with wireshark
- Port scanning with nmap
- Demo: Monitoring Users, Processes and the Network

Module 18: Routers, Firewalls and Monitoring Part 3

- TCP wrappers
- Intrusion detection systems
- General security principles
- Monitoring utilities
- Demo: xinetd and TCP Wrappers

Module 19: User Security

- Secure TTYs
- ssh and scp
- Secure FTP
- Managing SSH keys
- Demo: Password-less login with ssh

Module 20: Troubleshooting

- Plan for a failure
- Troubleshooting X windows
- Troubleshooting the network
- Machine won't boot
- Fixing the MBR
- Demo: Boot into Single User Mode