

RH253 Red Hat Linux Networking & Security Administration

Course Summary

For Linux- and/or UNIX- systems administrators who want to build skills at configuring common network services and security administration using Red Hat Enterprise Linux. See complete details below.

Goal:

To become a system administrator who can setup a Red Hat Enterprise Linux server and configure common network services and security at a basic level.

Audience:

Linux or UNIX system administrators who already have some real world experience with Red Hat Enterprise Linux systems administration and want a first course in networking services and security.

Prerequisites:

- [RH133 Red Hat Linux System Administration](#) or equivalent experience with Red Hat Enterprise Linux.
- LAN/WAN fundamentals or equivalent; Internetworking with TCP/IP or equivalent.

Duration: 4 days

Prepares for:

- [RH300 RHCETM Training and Certification Course](#) (5-day)
- [RH302 Red Hat Certified Engineer™ Exam-Only](#) (if participant also has significant on the job experience with Red Hat Enterprise Linux).
- [RHS333 Red Hat Enterprise Security: Network Services](#)

RH253 (Red Hat Linux Networking and Security Administration) Course Content

The following is an outline of the skills and knowledge represented in the training elements of the RH253 Red Hat Linux Networking and Security Administration Course.

Note: Technical content subject to change without notice. Significant changes in course content will generally be available in posted outlines at least two months prior to being

implemented in scheduled courses, to allow enrolled students adequate prep time. Reload this page regularly to insure up-to-date information.

Unit 1: System Performance and Security

- Concepts and Practices
- System Faults and Breaches
- Method of Fault Analysis
- Benefits of System Monitoring
- Managing Processes by Account
- **Hands-on lab:** System Monitoring

Unit 2: System Service Access Controls

- Service and Network Access Controls
- System Initialization and Service Management
- Service and Application Access Controls
- tcp_wrappers Configuration
- Security Enhanced Linux (SELinux)
- **Hands-on Lab:** Controlling access to certain hosts

Unit 3: Network Resource Access Controls

- Internet Protocol and Routing
- IPv6: Dynamic Interface Configuration
- IPv6: Static Interface Configuration
- IPv6: Routing Configuration
- Netfilter Overview
- Rules: General Considerations
- Connection Tracking
- Network Address Translation (NAT)
- IPv6 and iptables
- **Hands-on Lab:** Securing Networking

Unit 4: Organizing Networked Systems

- Host Name Resolution
- DNS-Specific Resolvers
- Trace a DNS Query with dig
- Exploring DNS with host
- Service Profile: DNS
- Getting Started with BIND
- bind-chroot Package
- caching-nameserver Package
- Remote Name Daemon Control (rndc)
- The DHCP Service

- DHCP Overview
- Configuring an IPv4 DHCP Server
- **Hands-on Lab:** Implement a Minimal DNS Server

Unit 5: Network File Sharing Services

- File Transfer Protocol (FTP)
- Network File Service (NFS)
- Port options for the Firewall
- Samba services
- Configuring Samba
- **Hands-on Lab:** Network File Sharing Services

Unit 6: Web Services

- Apache Overview
- Apache Server Configuration
- Virtual Hosts
- Apache Access Configuration
- CGI
- Apache Encrypted Web Server
- Squid Web Proxy Cache
- **Hands-on Lab:** Implementing Web (HTTP) Services

Unit 7: Electronic Mail Services

- Essential Email Operation
- Simple Mail Transport Protocol
- Sendmail SMTP Restrictions
- Sendmail Operation
- Using alternatives to Switch MTAs
- Postfix Configuration
- Postfix SMTP Restrictions
- Postfix Operation
- Mail Retrieval Protocols
- **Hands-on Lab:** Electronic Mail

Unit 8: Securing Data

- The Need For Encryption
- Symmetric Encryption
- Asymmetric Encryption
- Public Key Infrastructures
- Digital Certificates
- **Hands-on Lab:** Securing Data

Unit 9: Account Management

- Account Management
- Account Information (Name Service)
- Name Service Switch (NSS)
- Pluggable Authentication Modules (PAM)
- PAM Operation
- Utilities and Authentication
- **Hands-on Lab:** Account Management Methods