

RH253 Red Hat Linux Networking and Security

Course Summary

Description

This course will arm students with in-depth knowledge needed to configure common Red Hat Enterprise Linux network services and Security Administration. There will be a special emphasis for Network and Local security tasks in this course.

Topics

- System Performance and Security
- System Service Access Controls
- Network Resource Access Controls
- Organizing Networked Systems
- Network File Sharing Services
- Web Services
- Electronic Mail Services
- Securing Data
- Account Management

Audience

This course is designed for 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

Students should have real world experience in Red Hat Enterprise Linux system administration. Students should have completed RH133 and/or RH033 or have equivalent experience with LAN/WAN fundamentals and internet working with TCP/IP.

Duration

Four days

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Course Outline

I. System Performance and Security

- A. Concepts and Practices
- B. System breaches
- C. Fault analysis
- D. System monitoring
- E. Managing processes by account

II. System Service Access Controls

- A. Service and network access controls
- B. System initialization and service management
- C. TCP_wrappers Configuration
- D. SELinux administration

III. Network Resource Access Controls

- A. IP and routing
- B. Dynamic & Static Interface configuration
- C. Netfilter
- D. Connection tracking
- E. Network Access Translation (NAT)
- F. Ipv6 and iptables

IV. Organizing Networked Systems

- A. Host name resolution
- B. DNS Queries
- C. Exploring and profiling DNS
- D. BIND
- E. Caching-nameserver package
- F. Remote name Daemon control (rncd)
- G. DHCP overview
- H. Configuring an Ipv4 DHCP Server

V. Network File Sharing Services

- A. FTP and Network File Service (NFS)
- B. Port Options for the Firewall
- C. Samba services & configuration

VI. Web Services

- A. Apache overview
- B. Apache Server Configuration
- C. Virtual hosts
- D. Apache access controls
- E. CGI
- F. Squid Web proxy cache

VII. Electronic Mail Services

- A. Essential email operation
- B. Mail transport protocol
- C. Sendmail operation
- D. Postfix configuration
- E. SMTP restrictions
- F. Postfix operation
- G. Mail retrieval protocols

VIII. Securing Data

- A. Symmetric
- B. Asymmetric encryption
- C. Public key Infrastructures (PKI)
- D. Digital Certificates

IX. Account Management

- A. Account Information (Name Service)
- B. Name Service Switch (NSS)
- C. Pluggable Authentication Modules (PAM)
- D. PAM Operation and utilities and Authentication