

Course 604: Red Hat Linux Network Server: Installing, Setup, and Securing (5 days)

Course Description...

Five intensive days of learning how to create and manage network services using Red Hat Linux. There is an advance review of TCP/IP for the purposes of understanding stack hardening and iptables protections. This is followed by a hands-on setup to prepare a Red Hat Linux host to become a network server. Attendees then set up dns, dhcp, ldap, samba, nfs and mail services. This is followed by setting up ssh with port forwarding and stunnel, to have secure communications between servers and clients. The course concludes with techniques for logging, troubleshooting, and performance enhancements.

Suggested Prerequisites...

A thorough understanding of pipelines, shell scripts, file system architecture (FSS), and file and directory manipulation is an absolute necessity. Knowledge of how to install software using rpm, FSF tarballs is extremely helpful. Ability to read man and info pages is assumed.

Who should attend...

Anyone interested in setting up network services on Linux hosts.

Learning Objectives...

- How to do TCP/IP stack hardening
- How to setup and manage iptables
- Install, setup, and monitor snort
- Install and modify dns, dhcp with dynamic update, ldap, samba, nfs and mail services
- Setup and use ssh, port forwarding and stunnel for secure communication between servers and clients.
- How to use and manage logs for troubleshooting
- Approaches to performance enhancements

See next page for a detailed course outline...



Course Outline...

Introduction and Overview

Unit 1: TCP/IP Review

- Overview of TCP/IP
- TCP/IP Setup for Linux

Unit 2: Installation

- Steps before installation
- Selection of software and hardware
- Installation options

Unit 3: First Tasks

- Disaster preparedness
- Iptables setup
- Setting up logging
- Setting up snort as an IDS

Unit 4: xinetd Services

- inetd and tcpwrappers
- Configuring `xinetd.conf`
- Access restrictions and logging

Unit 5: DNS and WINS

- Getting and installing software
- Setting up a new domain
- Changes for security
- Integrating WINS

Unit 6: DHCP

- Getting and installing software
- Setting up floating IP addresses
- Setting up fix IP addresses
- Other values made available
- Integration with Win32 products
- Integration with DNS

Unit 7: LDAP

- Overview of LDAP
- Designing and setting up servers
- Security of data
- Client-side actions
- Integration with Win32 products



Unit 8: NFS

- Overview of NFS
- Server-side setup
- Client-side Mounting and Automounter
- Comparison of versions 2, 3 and 4

Unit 9: Samba

- Overview of Samba
- Server-side configuration
- Client-side configuration
- Passwords, permissions and Samba
- Printer sharing

Unit 10: Mail Services

- Overview of mail
- Setting up a MailHost with Sendmail
- Setting up a Mailhost with Postfix
- Setting up a POP server
- Setting up an IMAP server
- Client actions

Unit 11: SSL and SSH

- Overview
- Setting up a server
- Setting up keys
- Setting up a keyserver
- Client-side work

Unit 12: Using SNMP

- Architecture from an SNMP viewpoint
- Basics of SNMP
- Trend Analysis Using SNMP

Unit 13: Server Performance

- What can be monitored
- Tools for monitoring
- An approach to performance tuning

Please contact your ROI representative to discuss course tailoring!!!