

This is a comprehensive hands-on course for Red Hat Workstation Administration.

Audience

- Red Hat Workstation Administrators
- Anyone needing to know more about Red Hat Workstation Administration

Prerequisites

- Some experience with Red Hat

Course Length

- Five days

Teaching Methods

- Lecture with examples
- Supplemental written exercises

Learning Objectives

- Introduction to Red Hat Linux Workstation
- Boot, Initialization, Run Levels, and Shutdown
- Disk Storage
- Other File System Types
- Backup and Recovery
- Other Peripherals
- Understanding Kernels
- Software Maintenance
- Printing
- Mail
- Managing Users and Groups
- Watching the System
- Networking
- GUI Interfaces
- Installing a Linux Distribution

Course Outline

BF6

Introduction to Red Hat Linux Workstation

- Understanding distributions
- Hardware primer
- Software availability
- Documentation support

Boot, Initialization, Run Levels, and Shutdown

- Tracing the booting process
- Setting up GRUB
- Kernel initialization
- Run levels, Daemons, and init
- Managing Daemons
- Shutdown

Disk Storage

- Storage architecture
- Disk characteristics: ATA, SCSI, firewire
- Understand and building RAID
- The file system standard
- Logical file system design
- File system types: ext2, ext3
- File system integrity, security and mounting
- File system management: Space and quota
- Logical volume management (LVM)

Other File System Types

- Using tmpfs
- Understanding/proc
- Using Win32 file systems: VFAT, NTFS
- NFS and Automounter

Backup and Recovery

- Management and considerations
- Using traditional tools
- Non-traditional tools (LVM snapshots)
- System recovery techniques
- Using Recovery disk

Other Peripherals

- USB ports
- Serial ports
- IEEE 1394 (Firewire) ports
- Sound cards
- Floppy disks
- CDRoms, DVDs, and burning

Understanding Kernels

- Naming conventions
- Patching the kernel
- Managing modules
- Managing shared libraries
- /proc and sysctl

Software Maintenance

- Correct download procedures
- Managing with RPMs
- How to incorporate a deb
- How to incorporate an FSF Tarball
- How to incorporate commercial software
- Documentation: whatis, info, man

Printing

- Setup and management of local printers
- Setup and management of remote printers
- Accessing network attached printers

Mail

- The mail process
- Interacting with a POP, IMAP server
- Mail filtering on the host
- Mailers for Hosts: Sendmail, Postfix
- Compressing the files

Managing Users and Groups

- Adding an user
- Deleting an user
- Using PAM

- User setup
- Adding to LDAP
- Historical NIS

Watching the System

- Working with syslogd
- Other log files
- Using log files
- Managing log files: logrotate
- tmpwatch
- Automating tasks with at, cron, and anacron

Networking

- Overview of TCP/IP: Address, DNS
- Basics of routing
- Network configuration: Static and DHCP
- Multiple NIC cards
- Managing network access
- Client side services
- Personal firewalls: iptables

GUI Interfaces

- Overview of X
- Desktops and Window managers
- Configuring Xfree86
- Managing fonts
- Introduction to gnome management

Installing a Linux Distribution

- Before you begin
- Installing options
- RAID and LVM at installation
- Network and Firewall at Installation
- Doing an install
- Doing multiple installations