

## Course Duration

5 days

## Red Hat™ Enterprise Linux 5 Network Services Administration

### Course Overview

Linux is rapidly finding its way into business, education and government. Due to its outstanding reliability and performance, Linux is being used extensively for file, database and web server applications. While there are many Linux distributions, Red Hat™ Enterprise Linux is by far the most popular.

The **Enterprise Linux Network Services Administration** course will allow delegates to create a local area network; set-up a Network File System server and clients; Network Information Services and DNS. Delegates will also be introduced to Samba to enable Windows based systems access to Linux services; and Apache for web server applications.

### Who should attend

Users who have attended the **Enterprise Linux Essentials & Administration** course and require to integrate RHEL5, Fedora™ or CentOS™ 5 systems into their networks.

### Course Objectives

- Kernel Services & configuration
- Recompiling the Linux Kernel
- Introduction to Linux RAID
- Introduction to Logical Volume Management
- Setting up network client services
- Sharing files with NFS
- Sharing Windows and Linux resources with Samba
- Setting up a proxy server with Squid
- Setting up Network Information Services (NIS)
- Configuring DHCP servers & clients
- Setting up Domain Name Service (DNS) & BIND
- Using Apache to provide web services.
- Setting up E-Mail services
- Setting up telnet and FTP Services
- Operational recovery & security

## Course Outline

### 1. Kernel Services & Configuration

- Kernel Basics
- Kernel Versions
- Kernel Sources
- Recompiling a Kernel

### 2. Software RAID & Logical Volume Management

- RAID levels
- Mirroring a /home Partition
- Logical Volume management

### 3. Apache

- The Apache web server
- The httpd.conf file
- Apache Access Configuration
- Virtual hosts

### 4. The Squid Proxy Server

- Squid files & directories
- Basic configuration
- Configuration options
- Security options

### 5. Network File System

- NFS server configuration & operation
- The /etc/exports file
- NFS configuration tool
- NFS performance
- NFS client configuration

### 6. File Transfer Protocol

- Configuring the vsFTPd process
- vsFTP security

### 7. Samba Services

- Samba background
- Configuring Samba client
- Configuring Samba Server
- Configuring Samba users
- The Samba configuration utility

### 8. Domain Name Service

- Understanding DNS, Zones, Domains & Delegation
- The Berkeley Internet Name Domain (BIND)
- DNS Configuration files

- Caching only name server
- Slave name server
- Forwarding only name server
- The named.ca file
- The zone files
- The reverse zone files
- DNS configuration utility

## **9. Electronic Mail**

- Definition of Mail agents
- Configuring Dovecot for incoming mail
- Configuring POP & IMAP
- Configuring sendmail for basic operation
- Configuring Postfix for basic operation
- E-mail clients

## **10. Other network services**

- Extended Internet Services Daemon (xinetd)
- Secure Shell Package
- Dynamic Host Configuration Protocol
- Network Time Protocol

## **11. The X Window System**

- X clients & servers
- The xorg.conf file
- X configuration tools
- Running remote X applications
- Desktops & window managers

## **12. Securing Services**

- Use of tcp\_wrappers
- Firewall and packet filtering
- Network address translation
- Security enhanced linux

## **13. Troubleshooting**

- Booting different run levels
- Network problems
- Hostname resolution problems
- Partitions, filesystems & swap
- Boot loader problems