

Course Outline



Tel: +44 (0) 118 979 4000 Fax: +44 (0) 118 979 4000

Email: training@ptr.co.uk Web: www.ptr.co.uk

Red Hat Certification Rapid Track

Course Description:

This intensive course is intended for experienced UNIX or Linux system/network administrators who wish to migrate their skills onto the Red Hat Linux platform and who want a fast-track to prepare them for the Red Hat Certified Engineer (RHCE) exam. This five-day course comprises four days of hands-on training with the fifth day allocated for the RHCE certification lab exam (RH302GB)

This course provides the requisite knowledge for exam RH302GB (Red Hat Certified Engineer) which can be taken on day five of the course.

Pre-requisites:

This course is designed for delegates who have a solid understanding of UNIX or Linux system and network administration tasks. Experience of UNIX or Linux system installation, administration, configuration and implementation of key networking services (HTTP, DNS, NIS, DHCP etc) are all vital pre-requisites for this course. Delegates who have worked in UNIX system administration, technical support or consultancy related roles are ideally suited for this intensive course. Delegates without the required pre-requisites will make less than optimal progress in this course and will be unlikely to pass the certification exam. Delegates without the required pre-requisites should attend courses RH033GB (Introduction to Red Hat Linux I, II), RH133GB (Red Hat Linux System Administration I, II) and RH253GB (Red Hat Linux Networking and Security Administration).

Course Content:

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- **Hardware and Installation (x86 Architecture)**
 - Hardware Compatibility
 - CPU and SMP Support
 - RAM Size and Recognition
 - New Hardware Detection
 - Peripheral Devices
 - Device Configuration
 - Serial and Parallel Ports
 - Other Devices
 - Block Devices
 - Disk Addressing
 - Disk Partitioning
 - Sample Partition Structure
 - Standard Partition Types
 - File System Schemes
 - The Red Hat Installer
 - Installer Features
 - Red Hat Installation
 - Partitioning Hard Drives
 - Red Hat Linux on FAT: Partitionless Installation
 - Software RAID
 - Package Selection
 - Validating the Installation

- **Configuration and Administration**
 - Console based Configuration Tools
 - Authconfig
 - Basic Networking
 - Client-side DHCP and pump
 - Plug and Play
 - Sound Support
 - Mounting File Systems
 - Predefined mounts: `/etc/fstab`

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- **Configuration and Administration**
 - Miscellaneous Mounting Considerations
 - Printing Overview
 - Print Queue Management
 - Print System User Interface
 - Virtual Consoles
 - Administering User Accounts
 - User Private Groups
 - The Initial User Environment
 - System-wide Shell Configuration for bash Shells
 - The cron System
 - Anacron
 - The locate and tmpwatch Commands
 - System Logging
 - RPM Package Manager
 - Installing and Removing Software
 - RPM queries
 - RPM queries and verification
 - Other RPM features
 - Creating and Building RPMs
- **Alternative Installation Methods**
 - Laptops
 - Multiboot Systems
 - LILO Components
 - LILO Map Installer
 - The LILO Boot Prompt
 - Red Hat Linux Network Installation Server
 - Serial Console Installation
 - Using kickstart to Automate Installation
 - kickstart Directives

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- **Kernel Services and Configuration**

- The /proc file system
- /proc/sys configuration with sysctl
- The Linux Quota System
- Understanding /etc/inittab
- System Initialization Scripts
- Managing System V Initialization
- Software RAID Configuration
- Kernel Concepts
- Kernel Modules
- Kernel Modules and kmod
- Kernel Compilation: Preliminaries
- Kernel Compilation: Configuration
- Kernel Compilation: Compilation and Installation
- Kernel Compilation: Post-Installation

- **Standard Networking Services**

- TCP/IP Fundamentals
- HTTP/Apache
- Apache's Main Configuration Files
- Apache Virtual Host
- Email Services
- Email Delivery and Protocols
- BIND
- FTP
- NFS File Sharing
- NFS Server
- Client-side NFS
- Samba
- The /etc/samba/smb.conf File
- Global Options
- Service Options
- Debugging a Samba Installation

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- **Standard Networking Services**
 - Samba Clients and Access
 - DHCP
 - OpenSSH Packages and Versions
 - Ssh: Client Capabilities
 - Sshd Daemon
 - Squid Proxy Server
 - Other Red Hat Linux Network Services

- **X Windows System**
 - X Windows System Overview
 - X Server Configuration
 - X Server Version 3
 - X Server Version 4
 - Window Managers
 - Desktop Environments
 - Display Managers
 - Xfree86 Startup
 - X Security
 - The X Font Server
 - Remote Display of X Applications

- **User and Host Security**
 - Security Concepts
 - Pluggable Authentication Modules (PAM)
 - PAM Configuration
 - PAM Examples
 - Network Information Service
 - NIS Commands
 - Lightweight Directory Access Protocol (LDAP)
 - LDAP Server Support
 - OpenLDAP Configuration
 - LDAP Client Support
 - The xinetd daemon

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- **User and Host Security**
- **Routers, Firewalls and Troubleshooting**
- TCP Wrappers
- Static and Dynamic Routes
- Linux as a Router
- Linux Firewall Topologies
- Iptables and Firewall Rules
- Path of Packets Through the Kernel
- Sample iptables Commands
- IP Masquerading
- Implementing IP Masquerading
- High Performance Clustering
- Troubleshooting
- File System Corruption
- Rescue Environment
- Rescue Environment Utilities

Course Duration:

5 Days

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