



Red Hat Enterprise Linux Diagnostics and Troubleshooting (RH342)

Troubleshooting is both an art and a science. It is both an instinct and a technique. In this lab-intensive course, system administrators will learn techniques for troubleshooting a Linux system and how to use the troubleshooting tools available on Red Hat Enterprise Linux. Through hands-on labs, you will learn or improve your troubleshooting skills and gain additional experience by debugging live, virtualized systems.

Duration

32 hs

Prerequisites

- Red Hat System Administration I and Red Hat System Administration II
- RHCSA Rapid Track Course
- RHCSA certification or equivalent experience
- System administration knowledge under Red Hat Enterprise Linux, including:
 - Installation
 - Service management (using `service` and `chkconfig`, for example)
 - Basic system monitoring (using `ps` and `top` and perhaps `meminfo` and the `/proc` file system)
 - File system management (using `fdisk` and `mkfs`)
 - Basic troubleshooting (including managing log files and perhaps using hardware probing tools, such as `ethtool` and `lspci`)
- Red Hat System Administration I (RH124)
- RHCSA Rapid Track course (RH199)

Audience

Linux system administrators who understand installation and configuration of a Red Hat Enterprise Linux system and wish to deepen their understanding of troubleshooting on Linux

Course outline

1. Being Proactive, Part 1



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Monitor log files, hardware, and file systems
Monitor system and network performance

2. Being Proactive, Part 2

Approaches to managing configuration changes and developing a recovery plan

3. Basic Troubleshooting Techniques and Procedures

Recovery runlevels and rescue mode
Work with advanced GRUB features

4. Hardware Issues

Preempting hardware failures (looking for the signs)
Protecting against hardware failures
Redundant configurations
Tools to help identify hardware failures and intermittent problems

5. File System Issues

Locate unauthorized changes
Audit software
File system tuning and repair
File recovery

6. Disk Issues

Rescuing LVM volumes
Maintenance of LUKS-encrypted volumes

7. Networking Issues

Manual configuration of network cards
Connectivity issues
Network diagnostic tools
Monitor packets
Tune kernel parameters
Troubleshoot SAN communication

8. Application Issues

Tools and techniques for troubleshooting applications
Common application problems and how to solve them



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9. Security Issues

Working effectively with (and not against) security tools

SELinux

Authentication

Firewall

10. Red Hat Resources

Support options

Knowledgebase

Certified training

Initiating support calls

Technical account manager support

Developer support

Bugzilla

Support workflow

Diagnostic and information-gathering tools

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