Red Hat - DevOps

RH242: Red Hat Linux Troubleshooting

Troubleshooting skills for the experienced Linux administrator. Troubleshooting is both an art and a science - an instinct and a technique. In Red Hat Linux Troubleshooting (RH242), system administrators will learn techniques for troubleshooting a Linux system and how to use the troubleshooting tools available on Red Hat Enterprise Linux.

$3,200.00

- 4 Days

Upcoming Dates

Course Description

This course is a 4-day, heavily lab-oriented class designed to help the student learn or improve troubleshooting skills. Students will gain troubleshooting experience by debugging live, virtualized systems.

Course Outline

Being Proactive, Part 1

- Proactively monitor log files, hardware, file systems, and system and network performance

Being Proactive, Part 2

- Several approaches to managing configuration changes and developing a recovery plan

Basic Troubleshooting Techniques and Procedures

- Use recovery runlevels and rescue mode; work with advanced GRUB features

Hardware Issues

- Preempting hardware failures (looking for the signs); protecting against hardware failures; redundant configurations; tools to help identify hardware failures and intermittent problems

File System Issues

- Locate unauthorized changes; audit software; file system tuning and repair; file recovery

Disk Issues

- Rescuing LVM volumes; maintenance of LUKS-encrypted volumes

Networking Issues

- Manual configuration of network cards; connectivity issues; network diagnostic tools; monitor packets; tune kernel parameters; troubleshoot SAN communication.

Application Issues

- An overview of tools and techniques for troubleshooting applications; some common application problems and how to solve them

Security Issues

- Working effectively with (and not against) security tools, including SELinux, authentication, and firewall

Red Hat Resources

- Support options; Knowledgebase; certified training; initiating support calls; TAM support; developer support; Bugzilla; support workflow; diagnostic and information-gathering tools.

Audience

This course is intended for Linux system administrators who understand how to install and configure a Red Hat Enterprise Linux system and who wish to deepen their understanding of troubleshooting on Linux

Prerequisites

Before attending this course, students should have successfully completed the following course and have the equivalent experience.

RH124: Red Hat System Administration I

RH134: Red Hat System Administration II or RH200: RHCSA Rapid Track Course

- RHCSA certification holder or equivalent experience

Students should also have 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 the use of hardware probing tools, such as ethtool and lspci)

What You Will Learn

After completing this course, you will learn:

- Troubleshooting techniques, including being prepared
- Troubleshooting hardware, including listing, testing, and analyzing devices
- Troubleshooting applications, including diagnosing performance problems and investigating application and OS interactions
- Troubleshooting disks and file systems, including LVM, LUKS, ext3/4, and unauthorized changes
- Troubleshooting the network, including configuring, testing, and diagnosing problems with basic and advanced configurations
- Security, including working effectively with (and not against) security tools like SELinux, authentication, and firewall
- Making the most of Red Hat support resources