



Duration 40 hours

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Linux Expert

LINUX DIAGNOSTIC AND TROUBLESHOOTING

Basic Troubleshooting Techniques and Procedures

1. Recovery runlevels and rescue mode
2. Work with advanced GRUB features

Hardware Issues

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

File System Issues

1. Locate unauthorized changes
2. Audit software
3. File system tuning and repair
4. File recovery

Disk Issues

1. Rescuing LVM volumes
2. Maintenance of LUKS-encrypted volumes

Networking Issues

1. Manual configuration of network cards
2. Connectivity issues
3. Network diagnostic tools
4. Monitor packets
5. Tune kernel parameters

6. Troubleshoot SAN communication

Application Issues

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

Security Issues

1. Working effectively with (and not against) security tools
2. SELinux
3. Authentication
4. Firewall
5. Initiating support calls
6. Technical account manager support
7. Developer support
8. Bugzilla
9. Support workflow
10. Diagnostic and information-gathering tools.

LINUX PERFORMANCE TUNING

1. uptime
2. top
3. ps
4. vmstat - virtual memory statistics
5. iostat - block I/O disk utilization
6. mpstat - multi-processor statistics
7. free
8. sar - system activity report
9. strace
10. dmesg

SERVER SECURITY AND HARDENING

1. Preparation and Installation
2. Filesystem Configuration
3. System Updates
4. Secure Boot Settings
5. OS Hardening
6. Remote Administration Via SSH
7. PAM Configuration
8. Anti-Virus Considerations

ANSIBLE :

1. Ansible: Introduction
2. Ansible: Installation
3. Ansible: Installation demo
4. Ansible: Playbook
5. Ansible: Roles
6. Ansible: Galaxy
7. Ansible: Best Practices
8. Ansible: Directory Layout
10. Ansible Tower

HIGH AVAILABILITY CLUSTERING

1. Cluster Installation
2. Cluster Architecture
3. Cluster Nodes
4. Installing and configure Corosync & Pcmaker

5. Cluster Quorum
6. Cluster Fencing
7. ISCSI Storage

RED HAT SATELLITE 6.

1. Red Hat Network organizations, locations, users and roles.
2. Manage software with Red Hat Satellite environments and content views.
3. Create custom RPM packages.
4. Use Red Hat Satellite to configure hosts with Puppet.
5. Provision hosts with integrated software and configuration management.
6. Implement Metal-as-a-Service (MaaS) with Satellite discovery and provisioning of unprovisioned hosts.