Oracle Linux 5 & 6 System Administration Ed 3

Duración

Días: 5 Días
Horas: 30 horas

Descripción

The Oracle Linux 5 & 6 System Administration course covers a range of skills including installation, using the Unbreakable Enterprise Kernel, configuring Oracle Linux services, preparing the system for the Oracle Database, monitoring and troubleshooting.
This course teaches you how to handle typical issues faced by administrators in areas including authentication, securing and monitoring. You learn to understand the kernel development model and learn about Linux distributions. You hear about Oracle's comprehensive solutions and Oracle's contributions to the Linux community.

Qué aprenderá

- Enable kernel features.
- Set up users and groups.
- Configure system logging, the boot process, the network, and storage.
- Install additional software packages.
- Keep the kernel up to date by using Ksplice.
- Configure services such as NFS, FTP, OpenSSH, PAM.

Objetivos

1. Perform User and Group administration
2. Load kernel modules and configure kernel module parameters
3. Configure system logging
4. Use Ksplice to update the kernel on a running system
5. Install software packages from Unbreakable Linux Network and other repositories
6. Load and configure the Unbreakable Enterprise Kernel
7. Prepare Oracle Linux system for Oracle database
8. Perform Security Administration (iptables, chroot, TCP wrappers)
9. Configure File Sharing services (NFS, FTP, OpenSSH)
10. Create file systems
11. Maintain swap space
12. Troubleshoot problems and perform corrective action
13. Install Oracle Linux
14. Use Logical Volume Manager (LVM)
15. Configure RAID devices

Requisitos

Required Prerequisites

- Experience with Unix shell command line features and basic shell scripting
- Experience with archiving and compressing files in Unix and performing remote connections and file transfers
- Experience with text editing using vi and Unix process control
- Experience with types of user accounts and working with files and directories in Unix

Suggested Prerequisites

- UNIX and Linux Essentials

A quién se dirige

- Database Administrators
- Support Engineer
- System Administrator
- Technical Consultant

Beneficios para usted

Oracle Linux brings you the latest Linux innovations, delivering extreme performance, advanced scalability, and reliability for enterprise applications and systems. Implementing Ksplice provides you zero down time kernel updates.

Contenido

1. Course Introduction
    - Virtualization
    - Elements of course environment
    - Course structure

2. Introduction to Oracle Linux
    - Development of Linux Kernel
    - Linux kernel development model
    - Linux distributions
    - Oracle's commitment to the success of Linux
    - Oracle's technical contributions to the Linux community
    - Oracle's Unbreakable Enterprise Kernel (UEK)

3. Installing Oracle Linux
    - Obtaining Oracle Linux
    - Oracle Software Delivery Cloud
    - Anaconda installer
    - Installation steps
    - Firstboot tool

4. Linux Boot Process
    - Linux boot process
    - init process
    - SysV init runlevels
    - /etc/rc.d directory
    - Configure services for runlevels
    - Xinetd service Upstart

5. System Configuration
    - Configuring system time
    - Network Time Protocol (NTP)
    - System configuration files
    - The proc filesystem
    - The sysfs filesystem
    - The sysctl utility

6. Package Management
    - Introduction to Oracle Linux package management
    - The rpm utility
    - Oracle Linux Yum server
    - Yum configuration
    - The yum utility
    - Oracle Unbreakable Linux Network (ULN)
    - ULN channels
    - Switching from RHN to ULN

7. Ksplice
    - Introduction to Ksplice
    - How Ksplice works
    - Ksplice implementation
    - Installation instructions
    - Using Ksplice Uptrack
    - Ksplice Uptrack command summary
    - Ksplice Offline Client

8. Automate Tasks
    - Automating system tasks
    - Configuring cron jobs
    - Other cron directories and files
    - The crontab utility
    - Configuring anacron jobs
    - The at and batch utilities

9. Kernel Module Configuration
    - Loadable Kernel Modules (LKM)
    - The lsmod utility
    - The modinfo utility
    - Loading and unloading kernel modules
    - The modprobe utility
    - The insmod, depmod, and rmmod utilities
    - ASM Cluster File System (ACFS) and ASM Dynamic Volume Manager (ADVM) drivers
    - Kernel module parameters

10. User and Group Administration
    - User and group configuration files
    - Adding a user account
    - Modifying and deleting user accounts
    - Group account administration
    - User Private Groups (UPG)
    - Password configuration
    - User Manager Tool
    - su and sudo commands

11. Partitions, File Systems, and Swap
    - Disk Partitions and Table Manipulation Utilities
    - File System Types
    - Making File Systems
    - Mounting File Systems
    - The /etc/fstab File
    - Swap Space

12. Storage Administration
    - Logical Volume Manager
    - Physical Volume Utilities
    - Volume Group Utilities
    - Logical Volume Utilities
    - RAID levels
    - The mdadm utility

13. Network Configuration
    - Network interfaces
    - Network configuration files
    - Network interface utilities
    - Address Resolution Protocol (ARP)
    - Network interface bonding
    - Virtual Local Area Networks (VLANs)
    - The route utility
    - NetworkManager

14. File Sharing
    - NFS server configuration
    - The /etc/exports file
    - Starting the NFS services
    - The exportfs utility
    - NFS client configuration
    - Automounting filesystems
    - vsftpd configuration options

15. OpenSSH Service
    - OpenSSH configuration
    - OpenSSH utilities
    - The ssh, scp, and sftp utilities
    - The ssh-keygen utility
    - Connecting to a remote system without supplying a password
    - Using ssh-agent
    - Using ssh-add

16. Pluggable Authentication
    - Modules (PAM)
    - Introduction to PAM
    - PAM configuration files
    - PAM authentication modules
    - PAM module types
    - PAM control flags
    - PAM implementation examples

17. Security Administration
    - The chroot utility
    - Implementing a chroot jail
    - The named and vsftpd services use of chroot jail
    - Firewall configuration tool iptables terminology
    - Beginning iptables maintenance
    - Using the iptables utility
    - TCP wrappers

18. Oracle on Oracle
    - Oracle software user and group accounts
    - System resource tuning and network tuning
    - Linux shared memory kernel parameters
    - Semaphores kernel parameter
    - File handles and Asynchronous IO (AIO) kernel parameter
    - Oracle-related shell limits
    - Configuring HugePages Oracle ASM

19. System Monitoring
    - The sosreport utility
    - The iostat, mpstat, vmstat, sar, top, iotop, strace, netstat, and tcpdump utilities
    - Wireshark GUI and tshark CLI
    - OSWatcher Black Box (OSWbb)
    - OSWatcher Black Box Analyzer (OSWbba)
    - Enterprise Manager Ops Center
    - Spacewalk

20. System Logging
    - System log file configuration
    - conf
    - Global directives, modules, rules, and templates
    - Facility/Priority-based filters
    - rsyslog Actions
    - rsyslog Templates
    - Configuring logrotate
    - Use logwatch

21. Troubleshooting
    - Two-phased approach to troubleshooting
    - Operating system logs
    - The dmesg utility
    - Troubleshooting resources
    - Problem causes
    - Boot problems
    - NFS problems

22. Oracle Cloud Computing
    - Infrastructure as a Service (IaaS)
    - Oracle Private Cloud Appliance
    - Oracle OpenStack for Oracle Linux
    - Oracle Compute Cloud Service
    - Oracle Compute Cloud Service Subscriptions
    - Oracle-Provided Linux Images on the Cloud