Oracle Virtualization & Linux Administration QuickStart

Course Summary

Description

This course is intended as a brief but practical guide in preparing systems to host Oracle software installations. It includes introductory and basic Linux system administration skills most useful to Oracle professionals that are not now Linux systems administrators. Successful Oracle software installations start with what is sometimes termed a bare-metal installation of an operating system configured to support a particular Oracle software product, and then the installation of that product. In other cases, the machine used for installation is virtual and not physical, using one of the common virtualization products available today.

In this training course we will start with a step-by-step guide for the creation of a virtualized server using the no-cost Oracle VM VirtualBox virtual machine (VM) solution. Thereafter, we provide a step-by-step guide for the installation of the Oracle Linux operating system onto that virtual machine. These license-free products provide a powerful and cost-effective way in which to build a virtual data center into which Oracle and other enterprise software solutions may be deployed.

Within this guide we will also start one on the path of Linux system administration, providing some useful examples of systems administration tasks that one might perform to troubleshoot and otherwise support an Oracle software installation. That material might be considered as an introduction to Linux for database administrators and other Oracle professionals.

Objectives

By the end of this course, students will be able to:

- Learn about server virtualization and the role of a virtual machine within the Oracle technology stack.
- Download and install the Oracle VirtualBox hypervisor.
- Understand the Oracle Linux product and its relationship to Red Hat Enterprise Linux (RHEL).
- Understand the Oracle Linux Unbreakable Enterprise Kernel (UEK).
- Configure a VirtualBox virtual machine for an Oracle Linux guest.
- Obtain the Oracle Linux operating system installation package and perform an Oracle Linux installation.
- Complete first-time setup of a new Oracle Linux installation.
- Perform post-installation setup tasks for a new virtual machine, including VirtualBox guest operating system additions.
- Introduce Linux system administration, with a focus on common system administration tasks that facilitate or troubleshoot problems with an Oracle software installation.
- Use the rpm utility, the yum utility and the Oracle public YUM server to configure a host and to maintain and upgrade the host.
- Basic Linux shell commands for working with directories and files, users and groups, permissions and access rights.
- Basic Linux system administration for management of the system configuration, memory resources, storage resources and processes.
- Additional introductory topics for network administration and security administration.
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Course Summary (con’t)

Topics

- About Server Virtualization with Oracle VM
- VirtualBox
- Configure VM for Linux

- Oracle Linux Installation
- Basic Linux System Administration

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- Basic Linux System Administration

Audience

- System administrators
- Data center support engineers
- Implementation specialists

- Database administrators
- Web server administrators
- Senior application designers and developers

Prerequisites

There are no prerequisites for this course.

Duration

One day
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Course Outline

I. About Server Virtualization With Oracle VM VirtualBox
   A. About Server Virtualization
   B. About Oracle VM VirtualBox
   C. Install Oracle VM VirtualBox
   D. Installation On A Linux Host
   E. Upgrade VirtualBox

II. Configure VM For Linux
    A. Create A New Machine
    B. Edit Machine Settings
    C. About An MS Windows Guest OS
    D. Resource Interrelationships

III. Oracle Linux Installation
     A. Choosing An Operating System
     B. Prepare An Oracle Linux Installation
     C. Start Oracle Linux Installation
     D. Perform Oracle Linux Installation
     E. Oracle Linux First-Time Setup
     F. About VirtualBox Appliances

IV. Basic Linux System Administration
    A. Administering Your New Machine
    B. Package Management
    C. Post-Installation Tasks
    D. Ongoing Software Updates
    E. Directories & Files
    F. Users & Groups
    G. Directory & File Permissions
    H. System Administration
    I. Network Administration
    J. Security Administration