

Oracle VM for Administrators

Course Summary

Description

This course provides students with an opportunity to learn how to use Oracle's server virtualization software to create scalable virtual environment. Students will learn how to create a pool of scalable servers running Oracle VM on Linux. The student will also learn how to apply industry "best practices" in implementing, managing and optimizing Oracle VM across an enterprise environment.

Objectives

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

- Perform manual and scripted Oracle VM Manager and Server installations
- Install, configure, migrate, manage, and monitor virtual machines
- Setup Oracle VM for high availability (including Oracle RAC)
- Architect and deploy system virtualization according to "Best Practices"

Topics

- Introduction to Virtualization and Oracle VM
- Installing and Configuring Oracle VM
- Managing Oracle VM
- Installing and Configuring the Guest OS
- Virtualization Summary and Best Practices

Audience

This class is designed for the DBA, system designer or system architect who is familiar with the Oracle database.

Prerequisites

- The student must be familiar with Oracle 9i or Oracle 10g databases
- Understanding and use of fundamental Linux commands (such as ls and cp) and a Linux text editor
- No experience with SANs is required.

Duration

Four days

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Course Outline

I. Introduction to Virtualization and Oracle VM

- A. What is Virtualization?
- B. Why virtualize?
- C. Benefits of virtualization (Server consolidating and Server provisioning)
- D. Overview of virtualization technologies
- E. Hardware virtualization vs. paravirtualization
- F. Introduction to Oracle VM
- G. Oracle support for VM
- H. Oracle's VM template library
- I. Oracle VM Architecture - Xen Architecture and hardware support for virtualization

II. Installing and Configuring Oracle VM

- A. Installing the Oracle VM Server
- B. Hardware prerequisites for Oracle VM Server
- C. Types of VM installation (VM Server)
- D. Installation methods (installing from CDROM, hard drive, NFS, FTP, and HTTP)
- E. Installing and Configuring Oracle VM Manager
- F. Hardware and software prerequisites for VM Manager
- G. Installing VM Manager
- H. Configuring VM Manager and VM Server
- I. Configuring additional networks disks, etc.
- J. Configuring storage and network resources - Adding additional storage and network cards
- K. Configuring server high availability

III. Managing Oracle VM

- A. Creating Server Pools and Servers - Configuring Servers and Server Pools (Server Pool Master, Utility Server and Virtual Machine Server)
- B. Configuring Server Resources - Configuring Oracle VM Templates, ISO images, and shared virtual storage

- C. Managing the VM environment - Starting, stopping and configuring VMs

IV. Installing and Configuring the Guest OS

- A. Creating Virtual Machines using Templates
- B. Configuring the virtual machine
- C. Adding additional resources to the virtual machine
- D. Creating Virtual Machines manually
- E. Creating a VM using installation media
- F. Creating a VM using PXEBOOT
- G. Adding additional resources to the virtual machine
- H. Managing Virtual Machines
- I. Configuring VM networks
- J. Configuring storage on the VMs (using virtual and iSCSI storage)
- K. Migrating virtual machines
- L. Cloning virtual machines

V. Virtualization Summary and Best Practices

- A. The future of virtualization
- B. Best Practices
- C. Summary