

Oracle Private Cloud Appliance: Administration Ed 2

Duration: 2 Days

What you will learn

The Oracle Private Cloud Appliance: Administration course teaches students about administration of the Private Cloud Appliance to provide Infrastructure as a Service. The course also teaches the policy driven provisioning of application servers, and management of the hardware configuration. The primary focus areas of this course include the administration of storage, network, memory, and CPU resources, and the management and monitoring of the Private Cloud Appliance components.

Learn To:

Review the hardware and software installed and configured in the Private Cloud Appliance.

Monitor the health of hardware.

Allocate memory, CPU, network, and storage resources for effective virtualization support.

Create, deploy, manage, and delete virtual machines.

Configure the allocation of IaaS resources.

Configure the Private Cloud Appliance Oracle VM environment in which virtualized servers run.

Provide Infrastructure as a Service with Oracle Enterprise Manager Cloud Control.

Manage the efficient allocation of appliance resources.

Design an effective disaster recovery solution for the Private Cloud Appliance.

Perform a selection of activities on a simulated lab environment.

Benefits To You

The Oracle Private Cloud Appliance delivers on the promise of simplified cloud management. The converged infrastructure solution consists of preconfigured Oracle servers, network, and storage hardware and software. With this engineered system you create and maintain a highly configurable pool of memory, CPU, and storage resources for running applications in a virtualization environment. The administration procedures and techniques covered in this course enables:

Cost reduction by eliminating multi-vendor integration.

Eliminating the risk of cabling, hardware or software configuration errors.

Reducing the amount of time taken to deploy new applications.

Ensuring business continuity for IaaS consumers.

This course teaches you to create, deploy and manage virtualized servers and configure the Private Cloud Appliance

Oracle VM environment in which virtualized servers run.

Audience

Cloud Administrator
Data Center Manager
Network Administrator
Support Engineer
System Administrator
System Integrator

Related Training

Required Prerequisites

Experience administering Oracle VM Server for x86

Experience configuring networks and storage in the data center and in a virtualized environment

Experience creating, deploying and managing virtual machines

Suggested Prerequisites

Oracle VM Server for x86: Administration Ed 2

Course Objectives

Plan and manage appliance resources

Plan and implement disaster recovery strategies

Isolate tenants with different Quality of Service requirements

Clone a template to a virtual machine

Configure a virtual machine to use the first-boot dialog

Launch and complete an Oracle VM repository export

Start, pause, resume, stop a virtual machine

Connect to the Oracle VM Manager Command Line Interface (CLI)

Examine virtual machine configuration with the Oracle VM CLI

Create custom appliance and Oracle VM VLAN networks

Assign repository storage to a virtual machine

Create and clone virtual machines

Clone a virtual appliance to a virtual machine

Create a server processor compatibility group

Course Topics

Introduction and Installation

Definition and purpose of Private Cloud Appliance
Definitions of IaaS and PaaS
Private Cloud Appliance definition and conceptual architecture
Installation and related options and decisions
Accessing and using the Private Cloud Appliance CLI

Enterprise Deployment and Management of the Private Cloud Appliance

Oracle's Cloud Service Model for IaaS
Enterprise Manager Cloud Control roles for IaaS
Infrastructure Cloud administration for configuration and self service
Infrastructure self service
Monitoring the Private Cloud Appliance

Oracle VM for the Private Cloud Appliance

Oracle VM description
Oracle VM components
Oracle VM functional architecture
Private Cloud Appliance repositories and server pools
Policies and High Availability

Deploying and Examining a Virtual Machine

Steps to import and deploy virtual machines from a virtual appliance
Steps to deploy virtual machine from a template
Virtual machine life cycle
Examine a virtual machine configuration
Accessing and managing virtual machines using the command line interface

Managing Oracle VM Networks and Storage

Private Cloud Appliance and Oracle VM networking
VLAN interfaces and VLAN networks
Virtual NIC Tool
Oracle VM Storage and management
Repository structure
Creating and managing repositories
Cloning virtual disks

Creating and Packaging Virtual Machines

Types of virtual machines
Create a virtual machine from an ISO
Simple and advanced cloning of virtual machines
Prepare virtual machine for first-boot configuration
Edit virtual machines

Virtual Machine Use Cases

Clone multiple virtual machines from a single template

Configure isolated VLANs and demonstrate isolation using ping
Live migration
Enterprise Manager virtual machine management

Appliance Rack Management

Hardware configuration UI
Using the Command Line Interface to manage the rack
CLI task management
Update procedure

Appliance Server Management

Managing management nodes
Managing compute nodes

Appliance Network Management

Ethernet management network
Fabric interconnect internal configuration
Server fabric
Viewing network cards and network ports
Creating and managing Private Cloud Appliance custom networks

Appliance Storage Management

Storage network
ZFS Storage Appliance
Configuring external storage

Appliance Password Management

Maintaining passwords
Maintaining the appliance wallet

Appliance and Oracle VM System Backup

Private Cloud Appliance storage components
Appliance internal backup
Virtual machine cloning for backup
Repository Export

Appliance Disaster Recovery

Enterprise Manager and Maximum Availability Architecture
Transitions: Failover, switchover, business migration
Virtual machine failover
Network configuration requirements for virtual machine failover
Storage configuration requirements for virtual machine failover

Tenant Groups and Partitioning

Creating and managing tenant groups
Hard, soft, and trusted partitioning

Capacity Planning and Management

Memory and CPU allocation, and VM layout
Network configuration planning
Storage capacity planning