Oracle Solaris Cluster Administration

Duration: 5 Days

What you will learn

The Oracle Solaris Cluster Administration training helps you develop the skills needed to install and administer Oracle Solaris Cluster 3.3 3/13 hardware and software systems. You'll be introduced to Oracle Solaris Cluster 3.3 3/13 hardware and software product features, hardware configuration and software installation along with configuration, data service configuration, and system operation.

Learn To:

Install Oracle Solaris Cluster.
Use Cluster commands to administer global properties, quorum, disk paths and interconnect components.
Build ZFS Storage pools and file systems for the cluster.
Configure an IPMP group and fail over an adapter in the group.
Create scalable and failover resource groups.
Configure Oracle Solaris Zones, Failover Zones and Zone Clusters.

Benefits to You

Investing in this course will help you develop a deeper understanding of how to install, configure and administer an Oracle Solaris Cluster - skills that can be applied to your daily job. Expert Oracle University instructors will help you gain the skills necessary to create a robust environment, which allows for the balancing of workloads and failover of applications.

Gain Hands-On Experience

This course provides an intensive hands-on experience for key system administration tasks. You'll get hands-on experience installing, configuring and managing an Oracle Solaris Cluster 3.3 3/13 environment.

Audience

Data Center Manager
System Administrator
Technical Administrator

Related Training

Required Prerequisites

Perform system boot procedures

Manage file systems and local disk drives

Manage user administration

Administer the Oracle Solaris 10 OS

Suggested Prerequisites
Solaris Volume Manager Administration

Course Objectives

Configure solaris10 branded zone, build zone clusters, migrate scalable application from global zone to zone cluster, convert a scalable application to failover application in zone

Describe the major Oracle Solaris Cluster hardware and software components and functions

Configure access to node consoles and the cluster console software

Install and configure the Oracle Solaris Cluster software

Configure Oracle Solaris Cluster quorum devices and device fencing

Configure and use ZFS in the Oracle Solaris Cluster software environment

Configure Solaris Volume Manager software in the Oracle Solaris Cluster software environment

Create Internet Protocol Multipathing (IPMP) failover groups in the Oracle Solaris Cluster software environment

Describe resources and resource groups, configure a failover data service resource group (Network File System [NFS]), and configure a scalable data service resource group (Apache)

Course Topics

Planning the Oracle Solaris Cluster Environment
Define Clustering
Describe Oracle Solaris Cluster features
Identify Oracle Solaris Cluster hardware environment
Identify the Oracle Solaris Cluster software environment
Identify the Oracle Solaris Cluster-Supported applications
Identify the Oracle Solaris Cluster High Availability Framework
Identify Global Storage Services
Identify Virtualization support in Oracle Solaris Cluster

Establishing Cluster Node Console Connectivity
Describe the different methods of accessing a console
Configure the Oracle Solaris Cluster console software on the administration workstation
Use the Oracle Solaris Console tools

Preparing for the Oracle Solaris Cluster Installation
Prepare the Oracle Solaris OS environment

Identify Cluster Storage topologies
Describe Quorum Server, Quorum Votes, and Quorum Devices
Describe Persistent Quorum Reservations and Cluster Amnesia
Describe Data Fencing
Configure a Cluster Interconnect
Identify public network adapters
Configure shared physical adapters

Installing and Configuring the Oracle Solaris Cluster Software
List the Oracle Solaris Cluster installation and configuration steps
Install the Oracle Solaris Cluster packages by using the Oracle Solaris Cluster installer
Describe the Oracle Solaris Cluster framework configuration
Configure a cluster installation using all-at-once and typical modes
Configure additional nodes for the one-at-a-time method
Describe the Oracle Solaris OS files and settings that are automatically configured by scinstall
Perform automatic quorum configuration
Describe manual quorum selection

Performing Oracle Solaris Cluster Administration
Identify the cluster daemons
Use cluster commands
Use RBAC with Oracle Solaris Cluster
Administer Cluster Global Properties
Administer Cluster Nodes
Administer Quorum
Administer Disk Path Monitoring
Administer SCSI protocol settings of storage devices

Using ZFS With Oracle Solaris Cluster Software
Build ZFS storage pools and file systems
Use ZFS for Oracle Solaris Cluster failover data

Using Solaris Volume Manager With Oracle Solaris Cluster Software
Provide an overview of Solaris Volume Manager software
Describe shared disk sets
Describe Solaris Volume Manager Multi-Owner Disksets
Describe creating and managing shared disks
Build volumes in shared disk sets with soft partitions of mirrors
Use Solaris Volume Manager status commands
Perform Oracle Solaris Cluster software-level device group management
Mirror the boot disk with Solaris Volume Manager software

Managing the Public Network With IPMP
Define the purpose of IPMP
Define the concepts of an IPMP group
List examples of network adapters in IPMP groups on a single Oracle Solaris OS server
Describe the operation of the in.mpathd daemon
List the options available for use with the ifconfig command that support IPMP and configure IPMP using /etc/hostname.x
Configure IPMP manually with the ifconfig command
Perform a forced failover of an adapter in an IPMP group
Describe the integration of IPMP into the Oracle Solaris Cluster software environment

Managing Data Services, Resource Groups, and HA-NFS

Describe how data service agents enable a data service in a cluster to operate properly
List the components of a data service agent
Describe data service packaging, installation, and registration
Describe the primary purpose of resource groups
Differentiate between failover and scalable data services
Describe how to use special resource types
List the guidelines for using global and highly available local file systems
Differentiate between standard, extension, and resource group properties

Configuring Scalable Services and Advanced Resource Group Relationships

Identify scalable services and shared addresses
Describe the characteristics of scalable services
Describe the SharedAddress resource
Describe the properties of resource groups and scalable groups
Describe how the SharedAddress resource works with scalable services
Add auxiliary nodes for a SharedAddress property
Review command examples for a scalable service
Control scalable resources and resource groups

Using Oracle Solaris Zones in Oracle Solaris Cluster

Describe Oracle Solaris 10 OS zones
Identify HA for Zones
Configure a failover Zone
Identify Zones as virtual nodes
Identify zone cluster
Create a zone cluster
Identify cross-cluster affinities and dependencies

Exploring Oracle Solaris Cluster Use Cases

Configure Oracle Database 11g software as a failover application