

## **Enterprise Computing Solutions - Education Services**

# TRAINING OFFERING

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### **VERITAS**

# **Veritas InfoScale Availability 7.3 for UNIX/Linux: Administration**

CODE: LENGTH: PRICE:

VER ISA-7.3 A-U 40 Hours (5 dage) kr 25,000.00

#### **Description**

The Veritas InfoScale Availability 7.3 for Unix/Linux: Administration course is designed for the IT professional tasked with installing, configuring, and maintaining Veritas Cluster Server (VCS) clusters.

This class discusses how to use InfoScale Availability to manage applications in a high availability environment. After gaining the necessary fundamental skills that are required to manage a highly available application in a cluster, the course enables you to deploy InfoScale Availability in the lab environment to practically implement a sample cluster design and deployment.

#### **Objectives**

By the completion of this course, you will be able to:

Describe how clustering is used to implement high availability in the data center environment.

Describe VCS and cluster communication mechanisms.

Create a cluster, and configure service groups and resources.

Implement and verify failover and failback capability for application, storage, and network services.

Configure and optimize cluster behavior.

Protect data in a shared storage environment.

Describe I/O fencing operations, and its implementation.

Configure VCS to manage an Oracle database and other applications.

Configure and manage VCS clusters on virtual machines in VMware environment.

Implement Just in Time Availability for single node VCS cluster on virtual machine in a VMware environment.

#### **Audience**

This course is for UNIX/Linux system administrators, system engineers, technical support personnel, network/SAN administrators, and systems integration/development staff, who will be installing, operating, or integrating InfoScale Availability.

#### **Prerequisites**

Knowledge of and hands-on experience with UNIX/Linux systems administration is required.

#### **Programme**

Labs

High Availability Concepts

High availability concepts

Clustering concepts

High availability application services

VCS Building Blocks

VCS terminology

Cluster communication

Cluster Server Basics Clustering prerequisites VCS architecture

Exercise A: Installing InfoScale Enterprise using the Common Product Installer (CPI)]

Exercise B: Running a post-installation check

Exercise C: Adding cluster systems to VIOM as managed hosts

VCS Operations

Common VCS tools and operations

Service group operations Resource operations Labs VCS Configuration Methods Exercise A: Displaying cluster information Starting and stopping VCS

Exercise B: Displaying status and attributes Overview of configuration methods

Exercise C: Performing service group operations Online configuration Exercise D: Manipulating resources Controlling access to VCS

> Preparing Services for VCS Preparing applications for VCS Performing one-time configuration tasks

Exercise A: VCS configuration state and stopping VCS Testing the application service

Exercise B: Configuring automatic backup of the VCS configuration Stopping and migrating an application service

Exercise C: Setting non default VCS stop options Collecting configuration information

Online Configuration

Labs Online service group configuration

Exercise A: Configuring and examining storage for the service Adding resources

Exercise B: Examining the application Solving common configuration errors

Exercise C: Manually starting and stopping the application Testing the service group

Labs

Labs

Labs

Labs

Exercise A: Creating a service group for the loopy application Exercise B: Configuring resources for the loopy application Offline Configuration

Exercise C: Performing a virtual fire drill on the service group Offline configuration examples Exercise D: Testing the service group Offline configuration procedures Exercise E: Setting resources to critical Solving offline configuration problems

Testing the service group Exercise F: (Optional) Examining Veritas File System locking by VCS **Configuring Notification** Exercise A: Editing a copy of the main.cf file using a system editor Notification overview

Exercise B: Stopping VCS Configuring notification

Exercise C: Restarting VCS using the edited main.cf file Overview of triggers

Handling Resource Faults VCS response to resource faults Determining failover duration Controlling fault behavior Recovering from resource faults

Exercise A: Configuring and testing the notifier using VIOM Cluster Server Additions Fault notification and event handling Exercise B: Configuring trigger scripts

Intelligent Monitoring Framework

IMF overview Labs

IMF configuration Exercise A: Examining IMF monitoring on a resource

Faults and failover with intelligent monitoring Exercise B: (Optional) Examining the IMF default configuration

**Cluster Communications** VCS communications review

Cluster interconnect configuration

Joining the cluster membership Exercise A: Reconfiguring LLT

Changing the interconnect configuration Exercise B: Observing jeopardy membership Cluster Server Applications

Using I/O Fencing for Application Data Integrity Data protection requirements

I/O fencing concepts Exercise A: Fencing configuration pre-checks I/O fencing operations Exercise B: Configuring VCS for I/O fencing I/O fencing implementation Exercise C: I/O fencing configuration verification Fencing configuration Exercise D: Verifying data disks for I/O fencing

**Clustering Applications** 

Application service overview

VCS agents for managing applications Exercise A: Adding a resource of type Application

The Application agent Exercise B: Testing the resource

IMF support and prevention of concurrency violation Exercise C: IMF and Application agent monitoring options

Clustering Databases Exercise A: Verifying the Oracle configuration

VCS database agents Exercise B: Preparing storage and network resources for the Oracle service group

Database preparation Exercise C: Testing the Oracle database manually The database agent for Oracle Exercise D: Configuring Oracle under VCS control

Exercise E: Running a virtual fire drill and switching the Oracle service group Database failover behavior

Additional Oracle agent functions Exercise F: (Optional) Oracle monitoring

VMware vSphere high availability architecture

VMware administration VMware storage architecture

In-Guest Clustering VMware vSphere Data Center Architecture Server and storage migration

Veritas High Availability Deployment in VMware Veritas high availability architecture in VMware

Deploying Veritas InfoScale on VMs Exercise A: Verifying the VMware vSphere lab environment

Exercise B: Connecting to the nested virtual machines Configuring VIOM to manage InfoScale on VMs

Exercise C: Testing vMotion Configuring the vSphere Web Client for Veritas HA

#### Labs

Exercise A: Preparing the nested virtual machine lab environment

Exercise B: Deploying a Veritas cluster on nested virtual machines

Exercise C: Adding cluster systems as managed hosts to VIOM

Exercise D: Installing the VIOM Control Host add-on on mgt

Exercise E: Adding virtualization information to the VIOM management server

Exercise F: Installing and registering the Veritas HA Plug-in for vSphere Web Client

Veritas High Availability Configuration and Administration

Configuring storage for VCS failover clusters

Configuring shared storage for CFS clusters

Configuring availability

Just In Time Availability solution

#### Labs

Exercise A: Preparing the nested virtual machine lab environment

Exercise B: Using the vSphere Web Client to monitor Veritas high availability

Exercise C: Setting EnableUUID parameter for virtual machine disks

Exercise D: Configuring a VCS service group with the VMwareDisks resource to manage virtual machine storage

Exercise E: Managing the VCS service group from the vSphere Web Client

Exercise F: Testing vMotion with Veritas in-guest clustering

Exercise G: Exercise G: (Optional) Completing the Oracle service group configuration

#### **Session Dates**

På anmodning. Kontakt os venligst

#### Yderligere Information

Denne træning er også tilgængelig som træning på stedet. Kontakt os for at finde ud af mere.