VERITAS STORAGE FOUNDATION CLUSTER FILE SYSTEM HIGH AVAILABILITY 6.0.1 FOR LINUX: ADMINISTRATION

DURATION: 3 DAYS

COURSE OVERVIEW

In the Veritas Storage Foundation 6.0.1 for Oracle RAC: Administration course, you learn to implement and maintain a Veritas Storage Foundation for Oracle Real Application Cluster (SFRAC) environment. You learn the basic features of SFRAC, including a detailed description of the components and core architecture of SFRAC. In this course, you also perform hands-on labs to learn how to install, configure, administer, and troubleshoot SFRAC.

TARGET AUDIENCE

This course is for database administrators, system engineers, help-desk personnel, and system integration staff who will be installing, operating, or administering Veritas Storage Foundation for Oracle RAC.

COURSE OBJECTIVES

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

1. Describe cluster concepts and the SFRAC architecture.
2. Install and configure SFRAC.
3. Describe basic Oracle transactions and recovery principles.
4. Configure resources to manage storage, networks, and databases.
5. Perform administrative operations in SFRAC.
6. Configure I/O fencing.
7. Troubleshoot common operational issues in SFRAC.

COURSE CONTENT

Introduction

1. Course overview
2. The classroom lab environment
3. Install and Configure (Three-day course)

Storage Foundation and High Availability Concepts

1. Veritas Storage Foundation and High Availability solutions

2. VCS terminology
3. Cluster communication
4. VCS architecture
5. SFCFSHA and SFRAC overview

SFRAC Architecture

1. SFRAC basics
2. Communication infrastructure and processes
3. I/O fencing
4. Shared storage management
5. VCS architecture
6. Extensions for Oracle Cluster ware or RAC

Installing SFRAC

1. Preparing to install SFRAC
2. Installing and configuring SFRAC
3. Viewing the SFRAC configuration
4. Administrative interfaces

Configuring CVM and CFS

1. Cluster Volume Manager
2. CVM configuration
3. CVM startup and recovery
4. Cluster File System

CFS configuration

1. CFS recovery
2. Coordinating CVM and CFS configuration

Oracle Database Concepts

1. Database concepts
2. Oracle operations
3. Oracle in a Storage Foundation HA environment

Oracle RAC Concepts

1. Oracle RAC concepts and terminology
2. Oracle operations
3. Oracle RAC infrastructure requirements

VCS in an Oracle RAC environment

1. Resources for managing cluster ware components
2. Oracle RAC service groups
3. VCS configuration review

Installing Oracle Cluster ware and RAC

1. Oracle cluster ware overview
2. Determining Oracle file locations
3. Installation overview
4. Preparing the environment
5. Installing Oracle Cluster ware and RAC
6. Post-installation tasks

Managing Oracle Using VCS

1. Creating and testing an Oracle database
2. Configuring an Oracle resource
3. Other Oracle monitoring options

Disk-based I/O Fencing

1. Data protection requirements
2. I/O fencing concepts and components
3. I/O fencing operations
4. I/O fencing implementation
5. Configuring I/O fencing

Manage and Administer (Two-day course)

1. Monitoring the Cluster
2. Verifying SFRAC
3. Performing health checks and risk assessment
4. Monitoring Oracle components
5. Using log files

Troubleshooting Shutdown

1. Automatic cluster shutdown
2. Manual cluster shutdown
3. Cluster shutdown problems

Troubleshooting Startup

1. Automatic startup
2. Manual cluster startup
3. Cluster startup problems
4. Resource and service group startup problems

Troubleshooting Faults

1. System faults
2. Communication faults
3. Storage faults
4. SFRAC component issues
5. VCS resource faults
6. Oracle CRS faults

Install and Upgrade Considerations and Options

1. Installation considerations
2. Rolling upgrade
3. Phased upgrade
4. Other upgrades

I/O Fencing Maintenance and Configuration

1. Common disk-based I/O fencing maintenance tasks
2. Troubleshooting disk-based I/O fencing configuration
3. Recovering fenced systems
4. I/O fencing alternative configurations

COURSE PREREQUISITES

You must have basic working knowledge of the installation, configuration, and administration of UNIX operating systems and networks. You must also know about Oracle fundamentals, Volume Manager, File System, and Cluster Server configurations.