

Oracle Database 19c: High Availability New Features

Course Summary

Description

This course will help you to learn about High Availability new features introduced in the Oracle Database 19c. Focus areas include Clusterware, ASM, ACFS, RAC, and Data Guard.

Objectives

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

- Describe the function of Cross-Domain Protocol Proxies
- List the benefits of Shared SCAN VIPs
- Enable or disable Hardware Assisted Resilient Data (HARD) checking
- Create point-in-time database clones using Oracle ASM file group enhancements
- Use Oracle ACFS replication enhancements
- Use additional enhancements for Oracle ACFS/ADVM
- Explain the benefits of Oracle RAC Sharding
- Describe the benefits of Continuous Application Availability
- Describe the Database Nologging Enhancements
- List the new Data Guard Configurable Properties

Topics

- Oracle Clusterware
- Oracle ASM
- Oracle ACFS/ADVM
- Oracle RAC
- Oracle Data Guard

Audience

This course is intended for chief technology officers, information technology architects, database, system, network and application administrators.

Prerequisites

- A local installation of Oracle Database
- An appropriate file system format is being used

Duration

Two days

Oracle Database 19c: High Availability New Features

Course Outline

I. Oracle Clusterware

- A. Objectives
- B. Cross-Domain Protocol Proxies
- C. CDP Proxy Functionality
- D. CDP Proxy Configuration
- E. CDP Resource Monitoring
- F. CDP Proxy Monitoring
- G. CDP Resource Administration
- H. CDP Proxy Administration
- I. Shared SCAN
- J. Configuring Shared SCAN for an Oracle Member Cluster
- K. Configuring Shared SCAN for Oracle Standalone Cluster
- L. Optional Node VIPs
- M. Summary

II. Oracle ASM

- A. Objectives
- B. Overview of Creating Point-In-Time Database Clones
- C. Diagram of Create Point-In-Time Database Clones
- D. Phase One of Create Point-In-Time Database Clones
- E. Phase Two of Create Point-In-Time Database Clones
- F. Prepare Point-In-Time Database Clones – Connect to PDB
- G. Prepare Point-In-Time Database Clones – Prepare Mirror
- H. Split and Create Point-In-Time Database Clones
- I. Check the Status of Point-In-Time Database Clones
- J. View Information About Point-In-Time Database Clones
- K. Drop the Point-In-Time Database Clone Mirror Copy
- L. Cleanup of Point-In-Time Database Clone Process
- M. About Converting to Flex Disk Groups
- N. Convert to Flex Disk Groups without Restricted Mount
- O. Drop Oracle ASM File Groups With a Cascade Option
- P. Enable or Disable HARD Checking

- Q. Set the Value of the DISK_REPAIR_TIME Disk Group Attribute
- R. Overview of Convert Member Clusters to Direct or Indirect Storage
- S. Steps to Convert Member Clusters to Direct or Indirect Storage
- T. Run ASMCMD showpatches to Display Instance Information
- U. Summary

III. Oracle ACFS/ADVM

- A. Objectives
- B. About Oracle ACFS Replication
- C. Replicate a File System or a Snapshot of a Mounted File System
- D. Diagram of Replication Role Reversal for Primary and Standby Sites
- E. Set Up Replication Role Reversal for Primary and Standby Sites
- F. Perform Role Reversal for Primary and Standby Sites
- G. Run acfsutil Commands to Create Snapshot Links
- H. Run acfsutil Commands to Generate Named Snapshot Backups
- I. Overview of Oracle ACFS Remote Service for Member Clusters
- J. Diagram of Oracle ACFS Remote Service for Member Clusters
- K. Components of Oracle ACFS Remote Service
- L. Setup and Best Practices for Oracle ACFS Remote Service
- M. Create Oracle ACFS Remote Service Transport
- N. Create Oracle ACFS Remote Service Repository
- O. Create Oracle ACFS Remote Service Export
- P. Tune Oracle ACFS Remote Service
- Q. Clusterware Changes for Oracle ACFS Remote Service
- R. Oracle ACFS Remote Service Commands 1,2,3

Add an Oracle ACFS Remote Service – Steps

Oracle Database 19c: High Availability New Features

Course Outline (cont'd)

- S. Overview of Resizing an Oracle ACFS File System
 - T. Run the acfsutil size Command to Resize a File System
 - U. Display Storage Information with acfsutil info storage
 - V. Display Storage Information with acfsutil info storage -l
 - W. Change the Oracle ADVM Volume Redundancy Online
 - X. Temporarily Stop and Resume Modification in a File System
 - Y. Run the acfsutil freeze and thaw Commands
 - Z. Monitor Metadata with Enhanced Diagnostic Commands
 - AA. Monitor Metadata with the acfsutil meta Command
 - BB. Summary
- IV. Oracle RAC**
- A. Objectives
 - B. Continuous Application Availability
 - C. Managing Planned Maintenance
 - D. Managing Planned Maintenance Without User Interruption
 - E. Managing a Group of Services for Maintenance
 - F. Simplified Image-based Oracle Database Installation
 - G. Read-Only Oracle Homes
 - H. About Oracle Base Homes
 - I. Oracle Base Config
 - J. The orabasetab File
 - K. Enabling a Read-Only Oracle Home
 - L. Path and Directory Changes in Read-Only Oracle Homes
 - M. Oracle RAC Sharding
 - N. RAC Sharding Affinity Example
 - O. Summary
- V. Oracle Data Guard**
- A. Objectives
 - B. Buffer Cache Preservation During Role Change
 - C. Global Temporary Tables on Active Data Guard Instances
 - D. Private Temporary Tables on Active Data Guard Instances
 - E. Creating a Private Temporary Table
 - F. New V\$DATAGUARD_PROCESS View
 - G. ADG_ACCOUNT_INFO_TRACKING Initialization Parameter
 - H. Database Nologging Enhancements
 - I. Rolling Forward a Standby with One Command
 - J. New Data Guard Broker Commands: VALIDATE DATABASE SPFILE
 - K. New Data Guard Broker Commands: VALIDATE NETWORK CONFIGURATION
 - L. New Data Guard Broker Commands: VALIDATE STATIC CONNECT IDENTIFIER
 - M. Miscellaneous New Data Guard Broker Commands: SET ECHO and SHOW ALL
 - N. New OnlineArchiveLocation Configurable Property
 - O. The StandbyAlternateLocation Configurable Property
 - P. Summary