Oracle Database 10g: Data Guard Administration Release 2

Duration: 3 Days

What you will learn

This Oracle Database 10g: Data Guard Administration Release 2 training teaches you how to minimize the downtime associated with any outage and prevent data loss by learning how to use Oracle Data Guard. Explore Data Guard architecture as well as the creation of physical and logical standby databases.

Learn To:

Use Data Guard to achieve a highly available Oracle Database.

Create physical and logical standby databases.

Use Enterprise Manager Grid Control to create and manage the Data Guard configuration.

Apply what you have learned to meet stated business requirements.

Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling smooth and rapid consolidation within your Datacenter. In addition, you'll examine the performance implications of using various Data Guard features and learn troubleshooting tips you can use in your daily job.

Counts Toward Hands-On Certification Requirement

This course counts towards the hands-on course requirement for the Oracle Database 10g Administrator Certification. Only Classroom Training or Live Virtual Class formats of this course will meet the certification hands-on Requirement. Self-Study Courses and Knowledge Center courses are excellent study and reference tools but DO NOT meet the hands-on Requirement for certification.

Audience

Database Administrators

Support Engineer

Technical Consultant

Related Training

Suggested Prerequisites

Oracle Enterprise Manager 10g Grid Control

Course Objectives

Use Data Guard to achieve a highly available Oracle Database

Describe the Data Guard architecture

Modify the Data Guard services

Use the Data Guard broker

Implement physical and logical standby databases

Perform failover and switchover operations

Enable fast-start failover

Course Topics

Oracle Data Guard: Overview
What Is Oracle Data Guard?
Types of Standby Databases
Data Guard Broker Framework
Types of Services
Benefits of Implementing Oracle Data Guard

Understanding the Oracle Data Guard Architecture
Oracle Data Guard Architecture
Data Guard Redo Apply Architecture
Data Guard SQL Apply Architecture
Specifying Role-based Destinations
Configuring Standby Redo Logs
Standby Database Modes

Using Oracle Data Guard Broker and Enterprise Manager
Oracle Data Guard Broker Features
Data Guard Broker Configurations
Benefits of Using the Data Guard Broker
Data Guard Broker Interfaces
Using Enterprise Manager 10g Grid Control

Creating a Configuration and Physical Standby Database by Using Enterprise Manager
Using Enterprise Manager to Create a Broker Configuration
Using the Add Standby Database Wizard
Creating a Physical Standby Database
Verifying a Configuration
Creating Standby Redo Logs
Viewing the Data Guard Configuration Status
Viewing Data Guard Performance

Creating a Physical Standby Database by Using SQL
Preparing the Primary Database
Setting Initialization Parameters on the Primary Database
Backing Up the Primary Database Using RMAN
Creating a Control File for the Standby Database

Setting Initialization Parameters on the Standby Database
Setting Up the Environment to Support the Standby Database
Starting the Physical Standby Database
Performing Additional Configuration Tasks

Configuring Data Protection Modes and Log Transport Services
Setting the Log Transport Mode
Setting the Data Protection Mode
Delaying the Application of Redo
Using Flashback Database as an Alternative to Apply Delay
Additional Attributes that Affect Log Transport Services

Creating a Logical Standby Database by Using Enterprise Manager
Benefits of Implementing a Logical Standby Database
Preparing to Create a Logical Standby Database
Checking for Unsupported Objects and Data Types
Enabling Supplemental Logging
Creating a Logical Standby Database by using Enterprise Manager
Using the Add Standby Database Wizard
Enabling and Disabling the Auto-Delete Feature

Creating a Logical Standby Database by Using SQL
Preparing to Create a Logical Standby Database
Creating a Physical Standby Database
Preparing the Primary Database
Transitioning to a Logical Standby Database
Opening the Logical Standby Database
Verifying the Logical Standby Database
Performing Additional Configuration Tasks

Performing Switchover and Failover
Choosing the Best Role Transition Operation
Performing a Switchover by Using Enterprise Manager
Performing a Switchover by Using SQL
Performing a Failover by Using Enterprise Manager
Performing a Failover by Using SQL
Restoring Databases After a Role Transition
Flashback Through Standby Database Role Transitions

Enabling Fast-Start Failover
When Will Fast-Start Failover Occur?
Configuring Fast-Start Failover
Prohibited Operations After Enabling Fast-Start Failover
Managing the Observer
Performing Role Changes
Using Enterprise Manager to Enable Fast-Start Failover

Using Data Guard in a Real Application Clusters Configuration
Real Application Clusters and Data Guard
Configuration Considerations with RAC
Configuring a Primary Database with RAC
Configuring a Standby Database with RAC

Apply Instance Failover
Role Transitions with RAC

Other Considerations for Oracle Data Guard
Using a Physical Standby Database for Read/Write Testing and Reporting
Offloading Backups to a Physical Standby Database
Using Flashback Database and Real-time Apply
Using Flashback Database After RESETLOGS
Enabling Redo Encryption
Configuring Cascaded Redo Log Destinations

Workshop
Workshop Premise
Workshop Flow
Workshop Scenarios