

Oracle 19c Data Guard

Course Summary

Description

This course will describe the components of Oracles' Data Guard tool. We will cover the differences between the physical and logical databases and the overall architecture of Data Guard.

Topics

- Data Guard Components
- Data Guard Transport Method
- Differences between Failover and Switchover
- Data Guard Framework
- Data Guard Broker Configuration
- Defining Gap Resolution
- Defining Protection Modes
- Operating System Requirements
- Manually Creating a Physical Standby Database
- Physical Standby Database and Cloud Control
- Logical Standby Database
- Using Cloud Control to Create a Logical Database
- Backup Methods and Data Guard
- Flashback Database and Data Guard
- Backing up in a Data Guard Environment
- Data Guard and Failover
- Cloud Control and Failover
- Data Guard and Switch Over
- Cloud and Switch Over
- Define Fast Start Failover
- Failover Client
- Define a Snapshot Standby Database
- Oracle Active Data Guard
- Managing Data Guard Components
- Upgrading databases with Data Guard

Audience

This course is designed for the Oracle DBA with at least six months experience.

Prerequisites

Students should have at least six months experience

Duration

Five days

Oracle 19c Data Guard

Course Outline

- I. **Data Guard Components**
 - A. Identify what is Oracles' Data Guard
 - B. Describe the differences between a physical and logical standby
- II. **Data Guard Transport Method**
 - A. Redo Transport Services
 - B. Apply Services
 - C. Role Management Services
- III. **Differences between Failover and Switchover**
 - A. Database Failover
 - B. Database Switchover
- IV. **Data Guard Framework**
 - A. Data Guard Broker
 - B. Standby Database
 - C. Oracles Grid
- V. **Data Guard Broker Configuration**
 - A. Using Data Guard Broker
 - B. Non Data Guard Broker
- VI. **Defining Gap Resolution**
 - A. Resolving Gaps with Redo Apply
 - B. Resolving Gaps with Archive Apply
- VII. **Defining Protection Modes**
 - A. Maximum Protection.
 - B. Maximum Availability.
 - C. Maximum Performance.
- VIII. **Operating System Requirements**
 - A. Memory Requirements
 - B. Operating System Binaries
 - C. Oracle Binaries
- IX. **Manually Creating a Physical Standby Database**
 - A. Create a Physical Standby database
 - B. Verify the Standby Databases
 - C. View the configuration Status
- X. **Physical Standby Database and Cloud Control**
 - A. Creating a Standby database with Cloud Control
 - B. Verify the Standby Databases
 - C. View the configuration Status
- XI. **Logical Standby Database**
 - A. Manually Create a Logical Standby Database
 - B. Create the Standby Database using SQL/RMAN
 - C. Verify the Standby database is functional
- XII. **Using Cloud Control to Create a Logical Database**
 - A. Set up the Logical Standby database
 - B. Configure the Logical Standby Database
 - C. Create the Standby Database with Grid
- XIII. **Backup Methods and Data Guard**
 - A. Flashback database and Data Guard
 - B. RMAN commands and Data Guard
 - C. SQL Commands and Data Guard
- XIV. **Flashback Database and Data Guard**
 - A. Using Flashback database instead of Apply Delay
 - B. Recover the database from a prior point in time
 - C. Use Real-time Apply
- XV. **Backing up in a Data Guard Environment**
 - A. Oracle Managed Backups
 - B. User Managed Backups
 - C. Recovery in a Data Guard Environment

Oracle 19c Data Guard

Course Outline (cont'd)

- XVI. **Data Guard and Failover**
 - A. Define Failover
 - B. Define Failover versus Switchover
 - C. Perform a manual Failover
- XVII. **Cloud Control and Failover**
 - A. Identify Failover needs
 - B. Perform a Failover using Cloud
- XVIII. **Data Guard and Switch Over**
 - A. Identify Switchover requirements
 - B. Perform a Switchover using Cloud
- XIX. **Cloud and Switch Over**
 - A. Identify Switchover requirements
 - B. Perform a Switchover using Cloud
- XX. **Define Fast Start Failover**
 - A. Configure Fast Start Failover
 - B. Monitor Fast Start Failover
 - C. Re-instating the database
- XXI. **Failover Client**
 - A. Configure automatic failover for OCI Clients
 - B. Configure automatic failover for JDBC clients
 - C. Design database mirroring
- XXII. **Define a Snapshot Standby Database**
 - A. Convert a physical Standby Database to a Snapshot DB
 - B. Using a Snapshot Database
 - C. Monitoring the Snapshot Database
- XXIII. **Oracle Active Data Guard**
 - A. Convert a physical Standby Database to a Snapshot DB
 - B. Using a Snapshot Database
 - C. Monitoring the Snapshot Database
- XXIV. **Managing Data Guard Components**
 - A. Define Oracle Active Data Guard
 - B. Implement Active Data Guard
 - C. View Dynamic performance views
- XXV. **Upgrading databases with Data Guard**
 - A. Use SQL apply to upgrade
 - B. Use Physical Standby for rolling upgrades