Oracle Database 18c Data Guard

Cursusduur: 4 Dagen **Cursuscode: O18CDG**

Beschrijving:

Oracle Database 18c Data Guard Course Overview

English - Please note this course is only available in English.
Nederlands - Let op: deze training is alleen in het Engels beschikbaar.
Français - Veuillez noter que ce cours est uniquement disponible en anglais.
This course introduces the main architectural concepts of Oracle Data Guard. The delegate will learn how to use Oracle Data Guard to pro

Doelgroep:

Who will the Course Benefit?

The Oracle Database Data Guard course is designed for database administrators and technical support staff who are required to plan and implement Oracle Data Guard configurations.

Doelstelling:

- Course Objectives
- This course aims to provide the delegate with the knowledge to be able to plan,implement,manage and troubleshoot Oracle Data Guard standby database configurations.

Vereiste kennis en vaardigheden:

A working knowledge of Oracle Database Administration is required,these skills can be obtained by attendance on the pre-requisite Oracle Administration and Oracle Database Backup and Recovery with RMAN courses.

This course is run on a Linux operating system and a good working knowledge of Linux/UNIX is required. This knowledge can be gained by attendance on the pre-requisite Linux Introduction course.

Where Oracle 19c courses are listed in the Pre-requisite Courses section equivalent Oracle 12c or 18c courses would also suffice.

Vervolgcursussen:

Further Learning

- Oracle Database 19c DBA Performance Tuning & Management
- Oracle Database 19c RAC and Grid Infrastructure Administration
- Oracle Database 12cR2,18c and 19c New Features for Administrators
- Oracle Multitenant Administration

Cursusinhoud:

Oracle Database 18c Data Guard Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: DATA GUARD OVERVIEW

- Overview of Data Guard
- Requirements for Maintaining a Standby Database
- Data Guard Terminology
- Types of Standby Databases
- Levels of Protection
- Physical,Logical and Snapshot Standby Databases
- Role Transition Management Services
- Data Guard Interfaces
- Standby Database Creation
- Data Guard Installation
- SYSDG Administrative Privilege for Data Guard Operations

Session 2: DATA GUARD ARCHITECTURE

- Data Guard Architecture
- Processes Active on the Primary Database
- Processes Active on the Standby Database
- Data Guard Architecture and Initialization Parameters
- Data Guard usage with a Multitenant Database
- PDB Creation and Cloning in a Multitenant Architecture Environment

Session 3: CREATE A PHYSICAL STANDBY DATABASE USING SQL COMMANDS

- Prepare the Primary Database for Data Guard
- Initialization Parameters for the Standby Database
- Datafile and Controlfile Duplication
- Create the Standby Instance
- Network Files Configuration
- Activate the Standby Database
- Verify Primary and Standby Databases are Working
- Archive Log Loss
- Open the Standby Database
- Shut Down and Start Up the Data Guard Environment
- Put a Physical Standby Database in Managed Recovery Mode
- Put a Physical Standby Database in Read Only Mode
- Active Data Guard License
- Far Sync Instance
- Monitor the Primary and Standby Databases

Session 6: CHANGE MANAGEMENT

- Change Management Overview
- Add Datafiles or Tablespaces
- Drop Tablespaces and Delete Datafiles
- Transportable Tablespaces
- Rename Datafiles Online
- Add or Drop Redo Log Files
- DML Operations on Active Data Guard
- Recover Nonlogged Blocks
- Automatic Correction of Non-Logged Blocks
- Lost Write Detection
- Shadow Lost Write Protection
- Data Guard Database Compare

Session 7: CREATE A STANDBY DATABASE WITH RECOVERY MANAGER AND THE DBCA

- Overview of Standby Database Creation with RMAN
- Create a Suitable Backup with RMAN
- Standby Path and File Names
- Build the Standby Instance
- Create a Standby Database with RMAN
- Create a Standby Database with RMAN from an Active Database
- Create a Standby Database with the dbca in Silent Mode
- Create a Standby Database for a Multitenant Container Database with the dbca in Silent Mode

Session 8: DATA GUARD BROKER OVERVIEW

- Overview of Oracle Data Guard Broker
- Oracle Enterprise Manager
- The DGMGRL Command Line Interface
- Data Guard Monitor
- Install the Oracle Data Guard
- Start up and use the Data Guard Broker
- Configure Static Service Registration
- Obtaining Data Guard Diagnostic Information
- The v$DATAGUARD_PROCESS View

Session 9: BUILD A CONFIGURATION USING THE BROKER

- Prepare for a Configuration Build
- Configure the Primary Database
- Configure the Standby Database
- Rename a Configuration
- The SHOW DATABASE Command
- The VALIDATE Command
- Validate a Database
- Validate a Datafile
- Validate the spfile
- Validate Network Configuration
- Validate Status Connect Identifier
- Enable and Disable the Configuration

Session 13: ROLE TRANSMISSION USING SQL COMMANDS

- Role Transition Overview
- Prepare the Primary Database
- Prepare the Standby Database
- Perform a Switchover
- Perform a Failover
- Reinstate the Failed Primary
- Preserve Sessions During Switchover or Failover
- Overview of Application Continuity in a Data Guard Environment

Session 14: CREATE AND MANAGE A SNAPSHOT STANDBY DATABASE

- Snapshot Standby Database Overview
- Convert a Physical Standby Database to a Snapshot Standby Database using SQL Commands
- Convert a Physical Standby Database to a Snapshot Standby Database using the Data Guard Broker Oracle Database 18c Data Guard Training Course Course Contents - DAY 4

Session 15: CREATE AND MANAGE A LOGICAL STANDBY

- Overview of the Creation of a Logical Standby Database
- Prepare the Primary Database
- Prepare the Standby Database
- Transition a Physical Standby to a Logical Standby
- Start and Terminate Redo Apply Services
- Real Time Apply
- Delete Archives
- Monitor the SQL Apply Progress

Session 16: TUNE A STANDBY DATABASE

- Overview of Tuning a Physical Standby Database
- Temporary Undo,Global and Session Variables
- Optimize SQL Apply by Setting the ReopenSecs and NetTimeout Database Properties
- Optimize Redo Transmission
- Compress Redo Data
- Support for the Diagnostic Pack with Active Data Guard
- Support for the SQL Tuning Advisor
- Logical Standby Database Tuning
- The Significance of Tables without Primary Keys
- Statistics on the Logical Standby
- Transaction Consistency
- Optimize SQL Apply by Adjusting the Number of Applier Processes
- Optimize SQL Apply by Adjusting the

Session 4: REDO TRANSPORT SERVICES

- Overview of Redo Transport Services
- How Data Guard Sends Redo Data with Synchronous and Asynchronous Transport
- Control when Redo Data is Sent with the VALID_FOR Option
- Handle Transmission Errors
- Manage Archive Gaps
- Automatic Outage Resolution with Data Guard in 19c
- Levels of Protection
- Fast-Sync Mode

Session 5: REDO APPLY SERVICES ON A PHYSICAL STANDBY DATABASE

- Overview of Log Apply Services
- Apply Redo Data Immediately
- Delay Redo Data Application
- Terminate Redo Apply Services
- Other Redo Apply Features
- Configure a Cascading Standby Database Oracle Database 18c Data Guard Training Course Course Contents - DAY 2
- Execute DGMGRL Scripts Oracle Database 18c Data Guard Training Course Course Contents - DAY 3

Session 10: BACKUP AND RECOVERY CONSIDERATIONS IN AN ORACLE DATA GUARD CONFIGURATION

- Implement a Backup and Recovery Strategy
- The Usage of RMAN in a Data Guard Configuration
- Backup and Recovery of a Primary Database with a Physical Standby Database
- Backup and Recovery of a Logical Standby Database
- Use a RMAN Recovery Catalog in a Data Guard Configuration
- Create the Recovery Catalog
- Register a Database in the Catalog
- Configure Daily Incremental Backups
- Recover from the Loss of Datafiles and Control Files on Primary and Standby Databases
- Recover from the Loss of Online Redo Logs
- Restore and Recover Datafiles across the Network
- Roll forward a Physical Standby Database using RECOVER A STANDBY DATABASE FROM SERVICE primary_db
- One Command Refresh of the Standby Database
- Enable Block Change Tracking for a Physical Standby Database

Session 11: USE FLASHBACK DATABASE IN A DATA GUARD CONFIGURATION

- Overview of Flashback Database Usage in a Data Guard Configuration
- Configure Flashback Database
- Use Flashback Database Instead of Apply Data
- Use Flashback Database and Real Time Apply
- Flashback through Standby Database Role Transitions
- Automatic Flashback Standby Database
- Incomplete Recovery if Flashback Database Enabled

Session 12: MANAGE A CONFIGURATION USING THE BROKER

- Display and Edit Database Properties
- Set the Configuration Protection Mode
- Validate a Database
- Execute a Switchover
- Execute a Failover
- Preserve Connections using Role Transmission
- Alter the state of a Database
- Number of Preparer Processes
- Tune the Memory for the LCR Cache
- Set the ReopenSecs and NetTimeout Database Properties

Session 17: OVERVIEW OF PATCHING AND UPGRADING

- Upgrade the Oracle Data Guard Broker Configuration
- Rolling Upgrade Prerequisites
- Rolling Upgrade with a Logical Standby Database
- Rolling Upgrade with a Physical Standby Database
- Perform a Rolling Upgrade with the physru Script
- Use DBMS_ROLLING to Upgrade a Database
- Leading Group Databases and Leading Group Master
- Trailing Group Databases and Trailing Group Master

Session 18: DATA GUARD QUICK SETUP GUIDE

- Data Guard Physical Standby Setup using the Data Guard Broker
- Primary Server Setup
- Configure Initialization Parameters
- Service Setup
- Standby Server Setup
- Create a Standby Database using DUPLICATE
- Enable the Broker
- Database Switchover
- Database Failover
- Read-Only Standby and Active Data Guard
- Create a Snapshot standby

- Export the Broker File Configuration Files
- Configure Fast Start Failover
- Configure Multiple Failover Targets
- Enable and Disable Fast Start Failover
- Configure Fast Start Failover in Observer Mode
- Export the Broker File
- Monitor the Configuration
- Configure Multiple Observers

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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