

# Oracle Database: Data Guard Administration Workshop

Kód kurzu: ORDG

Co Vás naučíme Use Data Guard standby databases to support production functions such as reporting, querying, testing, and performing backups Create and manage physical and logical standby databases Use Enterprise Manager Grid Control and the Data Guard command-line interface (DGMGRL) to maintain a Data Guard configuration Use Data Guard to achieve a highly available Oracle database Požadované vstupní znalosti Oracle Database: Administration Workshop Oracle Database: Administration Workshop I Metody výuky Odborný výklad s praktickými ukázkami, cvičení na počítačích.

Studijní materiály Elektronické autorizované materiály Oracle v ceně kurzu.

Osnova kurzu Introduction to Oracle Data Guard

Causes of Data Loss Oracle Data Guard Architecture Types of Standby Databases (benefits of each type) Using the Data Guard Broker Differentiating Between Standby Databases and Data Guard Broker Configuration Data Protection Modes Performing Role Transitions Creating a Physical Standby Database by Using SQL and RMAN Commands

Preparing the Primary Database Creating the Physical Standby Database Oracle Data Guard Broker: Overview Oracle Data Guard Broker Features Oracle Data Guard Broker Configurations Data Guard Monitor Process Data Guard Monitor Configuration Files Benefits of Using the Data Guard Broker Comparing Configuration Management With and Without the Broker Using DGMGRL Creating a Data Guard Broker Configuration

Defining a Data Guard Configuration (overview) Setting up the Broker Configuration Files Setting the DG\_BROKER\_START Initialization Parameter to TRUE to start the Data Guard Broker Creating the Broker Configuration Adding the Standby Database to the Configuration Creating a Physical Standby Database by Using Enterprise Manager Grid Control

Using Enterprise Manager Grid Control to Create a Physical Standby Database Using the Add Standby Database Wizard Verifying a Configuration Editing Standby database properties Viewing the Data Guard Configuration Status Creating a Logical Standby Database

Monitoring the Data Guard Configuration by Using Enterprise Manager Grid Control Verifying the Configuration Viewing Log File Details Using Enterprise Manager Data Guard Metrics Using the DGMGRL SHOW CONFIGURATION Command to Monitor the Configuration Viewing Standby Redo Log Information Monitoring Redo Apply Creating and Managing a Snapshot Standby Database

Snapshot Standby Database: Architecture Converting a Physical Standby Database to a Snapshot Standby Database Activating a Snapshot Standby Database: Issues and Cautions Viewing Snapshot Standby Database Information Converting a Snapshot Standby Database to a Physical Standby Database Using Oracle Active Data Guard

Using Real-Time Query Enabling and Disabling Real-Time Query Enabling Block Change Tracking on a Physical Standby Database Creating Fast Incremental Backups Monitoring Block Change Tracking Configuring Data Protection Modes

Preparing to Create a Logical Standby Database Checking for Unsupported Objects, Data Types, and Tables Ensuring Unique Row Identifiers Creating the Logical Standby Using SQL Commands and Grid Control Securing your Logical Standby Database Performing Role Transitions

Contrast switchover vs. failover Preparing for a Switchover Performing a Switchover using DGMGRL and Enterprise Manager Types of Failovers Re-enabling Disabled Databases Using Flashback Database in a Data Guard Configuration Overview of Flashback Database Configuring Flashback Database Using Flashback Database Instead of Apply Delay Using Flashback Database and Real Time Apply Flashback Through Standby Database Role Transitions Using Flashback Database After Failover Enabling Fast-Start Failover

Installing the Observer Software Configuring Fast-Start Failover Configuring Automatic Reinstatement of the Primary Database Initiating Fast-Start Failover from an Application Disabling Fast-Start Failover Starting and Stopping the Observer Moving the Observer to a new Host Managing Client Connectivity

Understanding Client Connectivity in a Data Guard Configuration Preventing Clients from Connecting to the Wrong Database Creating Services for the Data Guard Configuration Databases Automating Client Failover in a Data Guard Configuration Automating Failover for OCI Clients Automating Failover for OLE DB Clients Configuring JDBC Clients for Failover Performing Backup and Recovery Considerations in an Oracle Data Guard Configuration

Backup and Recovery of a Logical Standby Database Using the RMAN Recovery Catalog in a Data Guard Configuration Creating the Recovery Catalog Registering a Database in the Recovery Catalog Configuring Daily Incremental Backups Using a Backup to Recover a Data File on the Primary Database Recovering a Data File on the Standby Database Patching and Upgrading Databases in a Data Guard Configuration

Upgrading an Oracle Data Guard Broker Configuration Using SQL Apply to Upgrade the Oracle Database Performing

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a Rolling Upgrade by Using SQL Apply Performing a Rolling Upgrade by Using an Existing Logical Standby Database  
Performing a Rolling Upgrade by Creating a New Logical Standby Database Performing a Rolling Upgrade by Using a  
Physical Standby Database Monitoring a Data Guard Configuration  
Monitoring the Data Guard Configuration by Using Enterprise Manager Grid Control Verifying the Configuration Viewing  
Log File Details Using Enterprise Manager Data Guard Metrics Using the DGMGRL SHOW CONFIGURATION  
Command to Monitor the Configuration Viewing Standby Redo Log Information Monitoring Redo Apply Optimizing a  
Data Guard Configuration  
Using Enterprise Manager Grid Control to monitor configuration performance Setting the ReopenSecs and  
NetTimeout database properties Compressing Redo Data Delaying the Application of Redo Data Optimizing SQL  
Apply Adjusting the Number of APPLIER and PREPARER processes

Pobočka	Dnů	Cena kurzu	ITB
Praha	4	57 900 Kč	60
Brno	4	57 900 Kč	60
Bratislava	4	2 270 €	60

Uvedené ceny jsou bez DPH.

## Termíny kurzu

Datum	Dnů	Cena kurzu	Typ výuky	Jazyk výuky	Lokalita
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Uvedené ceny jsou bez DPH.

## Co Vás naučíme

- Use Data Guard standby databases to support production functions such as reporting, querying, testing, and performing backups
- Create and manage physical and logical standby databases
- Use Enterprise Manager Grid Control and the Data Guard command-line interface (DGMGRL) to maintain a Data Guard configuration
- Use Data Guard to achieve a highly available Oracle database

## Požadované vstupní znalosti

- Oracle Database: Administration Workshop
- Oracle Database: Administration Workshop II

## Osnova kurzu

### Introduction to Oracle Data Guard

- Causes of Data Loss
- Oracle Data Guard Architecture
- Types of Standby Databases (benefits of each type)
- Using the Data Guard Broker
- Differentiating Between Standby Databases and Data Guard Broker Configuration
- Data Protection Modes
- Performing Role Transitions

### Creating a Physical Standby Database by Using SQL and RMAN Commands

- Preparing the Primary Database
- Creating the Physical Standby Database

### Oracle Data Guard Broker: Overview

- Oracle Data Guard Broker Features

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- Oracle Data Guard Broker Configurations
- Data Guard Monitor Process
- Data Guard Monitor Configuration Files
- Benefits of Using the Data Guard Broker
- Comparing Configuration Management With and Without the Broker
- Using DGMGRL

## Creating a Data Guard Broker Configuration

- Defining a Data Guard Configuration (overview)
- Setting up the Broker Configuration Files
- Setting the DG\_BROKER\_START Initialization Parameter to TRUE to start the Data Guard Broker
- Creating the Broker Configuration
- Adding the Standby Database to the Configuration

## Creating a Physical Standby Database by Using Enterprise Manager Grid Control

- Using Enterprise Manager Grid Control to Create a Physical Standby Database
- Using the Add Standby Database Wizard
- Verifying a Configuration
- Editing Standby database properties
- Viewing the Data Guard Configuration Status

## Creating a Logical Standby Database

- Monitoring the Data Guard Configuration by Using Enterprise Manager Grid Control
- Verifying the Configuration
- Viewing Log File Details
- Using Enterprise Manager Data Guard Metrics
- Using the DGMGRL SHOW CONFIGURATION Command to Monitor the Configuration
- Viewing Standby Redo Log Information
- Monitoring Redo Apply

## Creating and Managing a Snapshot Standby Database

- Snapshot Standby Database: Architecture
- Converting a Physical Standby Database to a Snapshot Standby Database
- Activating a Snapshot Standby Database: Issues and Cautions
- Viewing Snapshot Standby Database Information
- Converting a Snapshot Standby Database to a Physical Standby Database

## Using Oracle Active Data Guard

- Using Real-Time Query
- Enabling and Disabling Real-Time Query
- Enabling Block Change Tracking on a Physical Standby Database
- Creating Fast Incremental Backups
- Monitoring Block Change Tracking

## Configuring Data Protection Modes

- Preparing to Create a Logical Standby Database
- Checking for Unsupported Objects, Data Types, and Tables
- Ensuring Unique Row Identifiers
- Creating the Logical Standby Using SQL Commands and Grid Control
- Securing your Logical Standby Database

## Performing Role Transitions

- Contrast switchover vs. failover
- Preparing for a Switchover
- Performing a Switchover using DGMGRL and Enterprise Manager

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# Oracle Database: Data Guard Administration Workshop

- Types of Failovers
- Re-enabling Disabled Databases

## Using Flashback Database in a Data Guard Configuration

- Overview of Flashback Database
- Configuring Flashback Database
- Using Flashback Database Instead of Apply Delay
- Using Flashback Database and Real Time Apply
- Flashback Through Standby Database Role Transitions
- Using Flashback Database After Failover

## Enabling Fast-Start Failover

- Installing the Observer Software
- Configuring Fast-Start Failover
- Configuring Automatic Reinstatement of the Primary Database
- Initiating Fast-Start Failover from an Application
- Disabling Fast-Start Failover
- Starting and Stopping the Observer
- Moving the Observer to a new Host

## Managing Client Connectivity

- Understanding Client Connectivity in a Data Guard Configuration
- Preventing Clients from Connecting to the Wrong Database
- Creating Services for the Data Guard Configuration Databases
- Automating Client Failover in a Data Guard Configuration
- Automating Failover for OCI Clients
- Automating Failover for OLE DB Clients
- Configuring JDBC Clients for Failover

## Performing Backup and Recovery Considerations in an Oracle Data Guard Configuration

- Backup and Recovery of a Logical Standby Database
- Using the RMAN Recovery Catalog in a Data Guard Configuration
- Creating the Recovery Catalog
- Registering a Database in the Recovery Catalog
- Configuring Daily Incremental Backups
- Using a Backup to Recover a Data File on the Primary Database
- Recovering a Data File on the Standby Database

## Patching and Upgrading Databases in a Data Guard Configuration

- Upgrading an Oracle Data Guard Broker Configuration
- Using SQL Apply to Upgrade the Oracle Database
- Performing a Rolling Upgrade by Using SQL Apply
- Performing a Rolling Upgrade by Using an Existing Logical Standby Database
- Performing a Rolling Upgrade by Creating a New Logical Standby Database
- Performing a Rolling Upgrade by Using a Physical Standby Database

## Monitoring a Data Guard Configuration

- Monitoring the Data Guard Configuration by Using Enterprise Manager Grid Control  
Verifying the Configuration  
Viewing Log File Details
- Using Enterprise Manager Data Guard Metrics
- Using the DGMGRL SHOW CONFIGURATION Command to Monitor the Configuration
- Viewing Standby Redo Log Information
- Monitoring Redo Apply

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## Optimizing a Data Guard Configuration

- Using Enterprise Manager Grid Control to monitor configuration performance
- Setting the ReopenSecs and NetTimeout database properties
- Compressing Redo Data
- Delaying the Application of Redo Data
- Optimizing SQL Apply
- Adjusting the Number of APPLIER and PREPARER processes

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