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 databasePožadované vstupní znalosti Oracle Database: Administration Workshop Oracle Database: Administration Workshop IIMetody výukyOdborný výklad s praktickými ukázkami, cvičení na počítačích.
Studijní materiályElektronické autorizované materiály Oracle v ceně kurzu.
Osnova kurzuIntroduction 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 TransitionsCreating a Physical Standby Database by Using SQL and RMAN Commands
Preparing the Primary Database Creating the Physical Standby DatabaseOracle 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 DGMGRLCreating 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 ConfigurationCreating 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 StatusCreating a Logical Standby Database
Monitoring the Data Guard Configuration by Using Enterprise Manager Grid ControlVerifying the ConfigurationViewing 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 ApplyCreating 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 DatabaseUsing 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 TrackingConfiguring 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 DatabasePerforming Role Transitions
Contrast switchover vs. failover Preparing for a Switchover Performing a Switchover using DGMGRL and Enterprise Manager Types of Failovers Re-enabling Disabled DatabasesUsing 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 FailoverEnabling 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 HostManaging 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 FailoverPerforming 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 DatabasePatching 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 DatabaseMonitoring a Data Guard Configuration
 Monitoring the Data Guard Configuration by Using Enterprise Manager Grid ControlVerifying the ConfigurationViewing 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 ApplyOptimizing 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

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
- 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

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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 ControlVerifying the ConfigurationViewing 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

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- 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 ControlVerifying the ConfigurationViewing 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

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