

# CETPA INFOTECH PVT. LTD.

## CURRICULUM FOR ORACLE DATA GUARD

### INTRODUCTION TO ORACLE DATA GUARD

- Data Guard Configurations
- Primary Database
- Standby Databases
- Configuration Example
- Data Guard Services
- Log Transport Services
- Log Apply Services
- Role Management Services
- Data Guard Broker
- Using Oracle Enterprise Manager
- Using the Data Guard CommandLine Interface
- Data Guard Protection Modes
- Data Guard and Complementary Technologies
- Summary of Data Guard Benefits

### GETTING STARTED WITH DATA GUARD

- Standby Database Types
- Physical Standby Databases
- Logical Standby Databases
- User Interfaces for Administering Data Guard
- Configurations Data Guard Operational Prerequisites
- Hardware and Operating System Requirements
- Oracle Software Requirements
- Standby Database Directory Structure Considerations
- Online Redo Logs, Archived Redo Logs, and Standby Redo Logs
- Online Redo Logs and Archived Redo Logs
- Standby Redo Logs

### CREATING A PHYSICAL STANDBY DATABASE

- Preparing the Primary Database for Standby Database Creation
- Enable Forced Logging Create a Password File
- Setting Primary Database Initialization Parameters Enable Archiving Creating a Physical Standby Database
- Create a Backup Copy of the Primary Database Datafiles
- Create a Control File for the Standby Database
- Prepare an Initialization Parameter File for the Standby Database
- Copy Files from the Primary System to the Standby System
- Set Up the Environment to Support the Standby
- Database Start the Physical Standby Database
- Verify the Physical Standby
- Database Is Performing Properly Further Preparations

### LOG TRANSPORT SERVICES

- Introduction to Log Transport Services
- Where to Send Redo Data Destination
- Types
- Configuring Destinations with the LOG\_ARCHIVE\_DEST\_n
- Parameter Setting Up Flash Recovery Areas As Destinations
- How to Send Redo Data
- Using Archiver Processes (ARCn) to Archive Redo Data

- Using the Log Writer Process (LGWR) to Archive Redo Data
- Providing for Secure Redo Data Transmission
- When Redo Data Should Be Sent
- Specifying RoleBased Destinations with the VALID\_FOR Attribute
- Specify Unique Names for Primary and Standby Databases What to Do If Errors Occur
- Setting Up a Data Protection Mode
- Choosing a Data Protection Mode
- Configuring Standby Redo Log Files
- Setting the Data Protection Mode of a Data Guard
- Configuration Managing Log Files
- Specifying Alternate Directory Locations for Archived Redo Log Files
- Reusing Online Redo Log Files
- Managing Standby Redo Log Files
- Planning for Growth and Reuse of the Control Files
- Sharing a Log File Destination Among Multiple Standby Databases
- Managing Archive Gaps
- When Is an Archive Gap Discovered?
- How Is a Gap Resolved?
- Using the Fetch Archive Log (FAL) Process to Resolve Archive
- Gaps Manually Determining and Resolving Archive Gaps
- Verification
- Monitoring Log File Archival Information
- Monitoring the Performance of Log Transport Services

## LOG APPLY SERVICES

- Introduction to Log Apply Services
- Log Apply Services Configuration Options
- Using RealTime Apply to Apply Redo Data Immediately
- Specifying a Time Delay for the Application of Archived Redo Log Files Applying Redo Data to Physical Standby Databases
- Starting Redo Apply Starting
- RealTime Apply Stopping Log Apply Services
- Monitoring Log Apply Services on Physical Standby
- Databases Applying Redo Data to Logical Standby Databases
- Starting SQL Apply
- Starting Realtime Apply
- Stopping Log Apply Services on a Logical Standby Database
- Monitoring Log Apply Services for Logical Standby Databases
- Tuning the Log Apply Rate for a Physical Standby Database

## ROLE MANAGEMENT

- Introduction to Role Transitions
- Which Role Transition to Use Switchovers
- Failovers
- Role Transitions Involving Physical Standby Databases
- Switchovers Involving a Physical Standby Database
- Failovers Involving a Physical Standby Database
- Role Transitions Involving Logical Standby
- Databases Switchovers Involving a Logical Standby
- Database Failovers Involving a Logical Standby
- Database Managing a Physical Standby Database
- Starting Up and Shutting Down a Physical Standby
- Database Starting Up a Physical Standby Database
- Shutting Down a Physical Standby Database
- Using a Standby Database That Is Open for ReadOnly Access
- Assessing Whether or Not to Open a Standby Database for ReadOnly

- Access Opening a Physical Standby Database for ReadOnly Access
- Sorting Considerations for Standby Databases Open for ReadOnly Access
- Managing Primary Database Events That Affect the Standby Database
- Adding a Datafile or Creating a Tablespace
- Dropping a Tablespace in the Primary Database
- Using Transportable Tablespaces with a Physical Standby Database
- Renaming a Datafile in the Primary Database
- Adding or Dropping Online Redo Log Files
- Altering the Primary Database Control File
- NOLOGGING or Unrecoverable Operations
- Using RMAN to Back Up and Restore Files on a Physical Standby Database
- Backup Procedure
- Effect of Switchovers, Failovers, and Control File Creation on Backups Additional Backup Situations
- Deletion Policy for Archived Redo Log Files In Flash Recovery Areas
- Recovering Through the OPEN RESETLOGS Statement
- Monitoring the Primary and Standby Databases
- Alert Log
- Dynamic Performance Views (Fixed Views)
- Monitoring Recovery Progress

**HEAD OFFICE:** 200 Purwavali , 2nd Floor, (Opp. Railway Ticket Agency), Railway Road , Ganeshpur, Roorkee – 247667, Ph.No.: 09219602769, 01332-270218 Fax - 1332 – 274960

**CORPORATE OFFICE:** D-58, Sector-2, Near Red FM. Noida -201301, Uttar Pradesh  
Contact Us: +91-9212172602 , 0120-4535353

**BRANCH OFFICE:** 401 A, 4<sup>th</sup> Floor, Lekhraj Khazana, Faizabad Road, Indira Nagar, Lucknow-220616 (U.P.) Ph. No: +91-522-6590802, +91-9258017974,

**BRANCH OFFICE:** 105, Mohit Vihar, Near Kamla Palace, GMS Road, Dehradun-248001, UK  
Contact: +91-9219602771, 0135-6006070

**Toll Free- 1800-8333-999 (from any network)**

**CETPA**<sup>®</sup>

*Because Knowledge Matters*

ISO 9001 : 2008 Certified