

## Course 288: Oracle Database 10g Streams

### Course Description...

This course introduces students to the Oracle Streams. Streams permit the sharing of data, messages, and events between schemas, applications, and databases. Students learn how to:

- Set up and monitor an Oracle Streams environment
- Transform and replication data from one site to another
- Use Streams to perform Message Queuing, Data Replication, and Event Management and Notification operations

Hands-on Lab exercises give students practice using Oracle Streams.

### Learning Objectives...

- Configure an Oracle Streams environment
- Monitor the capture, propagation and apply of events
- Alter the Streams environment to add new sites or objects
- Configure conflict handling for data replications
- Transform data being replicated
- Enqueue and Dequeue messages using Streams
- Troubleshoot a Streams environment
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### Who should attend...

Database Administrators (DBAs) who are implementing distributed or application sharing systems. Data Warehouse technicians will also benefit.

### Prerequisites...

Significant administration experience with Oracle Database 10g is necessary (or an earlier release of Oracle Database coupled with an awareness of 10g features) is essential. Knowledge of distributed systems, Oracle's Advanced Queuing, and PL/SQL coding is also suggested

**See next page for a detailed course outline...**



## Course Outline

### Introduction and Overview

Course Objectives

#### Unit 1: Oracle Database 10g Streams

- Overview of Streams
- Administrative Tools
- Configuring the Environment

#### Unit 2: The Capture Process

- Redo Log and Logical Change Records (LCRs)
- Types of Changes
- Capture Process Architecture
- Managing a Capture Process
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#### Unit 3: Staging and Propagation

- Captured and User-Enqueued Events
- Propagation between Queues
- Staging and Propagation Architecture
- Managing Staging and Propagation

#### Unit 4: The Apply Process

- Apply Process Architecture
- Rules
- Event Processing
- Managing the Apply Process

#### Unit 5: Rules

- Components of a Rule
- Rule Set Evaluation
- Types of Rules
- Rule-based Transformation
- Managing Rules and Transformations

#### Unit 6: High Availability Environments

- Overview
- Protection from Failures
- Best Practices
- RAC Support for Streams

#### Unit 7: Monitoring the Streams Environment

- Relevant Data Dictionary Views
- Local and Remote Streams Administrators
- Monitoring the Capture Process
- Monitoring Queuing and Messaging
- Monitoring Propagations and Propagation Jobs
- Monitoring the Apply Process
- Monitoring Rules and Rule-Based Transformation



## **Unit 8: Troubleshooting the Streams Environment**

- Troubleshooting Capture Problems
- Troubleshooting Propagation Problems
- Troubleshooting Apply Problems
- Troubleshooting Rules and Transformation Problems
- Trace Files and the Alert Log

## **Unit 9: Course Summary**

- Plan of Action

***Please contact your ROI representative to discuss course tailoring!!!***