

Migrating RAC Database to Oracle Cloud Infrastructure

Course Duration: 24 Hours

Course code: ODM-MRACDOC

1. Course Overview

This course is designed to provide learners with the knowledge and hands-on skills required to plan, execute, and validate the migration of Oracle RAC (Real Application Clusters) databases to OCI. Participants will learn how to assess on-premises RAC environments, design cloud migration strategies, perform database migration using multiple methods, and validate performance and availability post-migration

2. What you'll learn?

By the end of the course, participants will be able to:

- Describe Oracle RAC architecture and benefits
- Understand OCI infrastructure suitable for RAC deployment
- Plan a RAC migration strategy to OCI
- Execute migration using OCI tools and methodologies
- Configure networking, storage, and security for RAC in OCI
- Validate migrated databases and troubleshoot common issues
- Implement post-migration performance optimization

3. Target Audience

- Database Administrators (DBAs) managing Oracle RAC databases
- Cloud Engineers and Architects planning Oracle Database migrations
- IT Professionals seeking expertise in high-availability database migration to OCI

4. Pre-Requisites

Familiarity with:

- Oracle RAC architecture and administration
- Oracle Database concepts (12c/19c)

- OCI fundamentals (Compute, Storage, Networking)
- Basic Linux system administration

5. Course content

Module 1: Course Introduction

- Introduction and course objectives
- Overview of migration concepts

Module 2: Introduction to Oracle RAC and OCI

- RAC architecture and components
- Benefits and use cases of RAC on OCI
- OCI infrastructure overview for RAC

Module 3: Assessing On-Premises RAC for Migration

- RAC inventory and readiness assessment
- Identifying migration dependencies
- Evaluating storage, network, and compute requirements

Module 4: Planning RAC Migration to OCI

- Selecting migration strategies (Lift & Shift, Data Guard, RMAN, GoldenGate)
- Designing OCI network and storage topology
- High availability and disaster recovery planning

Module 5: Preparing OCI Environment for RAC

- Provisioning OCI compute instances for RAC nodes
- Configuring OCI block storage and shared storage
- Setting up virtual networking (VCNs, subnets, and security lists)

Module 6: Migrating RAC Database Using RMAN

- Preparing source database for migration
- Configuring RMAN for backup and restore to OCI

- Restoring RAC database on OCI

Module 7: Migrating RAC Database Using Data Guard

- Setting up Data Guard for RAC
- Switchover and failover operations
- Synchronizing databases with minimal downtime

Module 8: Migrating RAC Database Using Oracle GoldenGate

- Configuring GoldenGate replication
- Performing initial load and change data capture
- Validating migrated data consistency

Module 9: Post-Migration Configuration and Validation

- Updating database parameters and TNS names
- Configuring backup and recovery in OCI
- Testing connectivity, failover, and performance

Module 10: Monitoring and Troubleshooting RAC in OCI

- Using Oracle Enterprise Manager for RAC monitoring
- Troubleshooting common migration issues
- Performance tuning and optimization tips

Module 11: Security and Compliance

- Implementing OCI security best practices for RAC
- Data encryption and key management
- Audit and compliance checks

Module 12: Wrap-Up and Best Practices

- Summary of key concepts and strategies
- Recommended tools and references
- Next steps and advanced learning paths