

How a Leading Indian Insurance Provider Modernized a 20TB Workload and Eliminated Oracle Licensing Costs



Overview

A leading Indian insurance provider was dependent on a complex, 20TB Oracle database setup. This dependency caused high enterprise licensing costs and limited cloud-native scalability. Mydbops led the modernization to Amazon Aurora PostgreSQL using AWS DMS. By converting 2,000+ tables and rewriting hundreds of complex code objects, the client successfully achieved zero Oracle licensing costs and established a highly scalable database setup without disrupting daily insurance operations.

100%
License Cost Savings
Eliminated enterprise Oracle licensing fees

2.68 Billion
High-Speed Migration
Migrated in 4 hours to minimize cut-over downtime.

20TB
Data Migrated
Successfully migrated a business-critical transactional dataset.

437+
Code Objects Modernized
Legacy business logic rewritten to ensure continuous operations.

Oracle

Amazon Aurora PostgreSQL

Consulting Services

About the client

The client is a major Indian insurance provider managing millions of active policyholders and claims nationwide. Operating at an enterprise scale, their daily policy administration, underwriting, and customer service workflows are powered by a high-volume database setup spanning nearly 20 Terabytes of active data. This critical platform processes billions of database records across more than 2,000 tables to support continuous, always-on transactional operations.

★★★★★

I would like to extend my sincere appreciation to your team for the support provided during the data migration and conversion activities for our AWS MAP 2.0 project for our Insurance company. Your contribution across Oracle to PostgreSQL migration, schema conversion, migration execution, and overall technical collaboration played an important role in helping us successfully complete this phase of the program. The partnership demonstrated by your technical team throughout the migration activities, particularly while navigating various migration complexities and environment-specific challenges, is acknowledged and appreciated.

Project Lead (Confidential)

AWS MAP 2.0 Database Modernization Program

Deployment Type	Database Stack / Services Used	Objective / Outcome
Cloud-Based Deployment	Migration from Oracle to Amazon Aurora PostgreSQL	100% Elimination of Oracle Enterprise License Costs

Business Challenges

Overview

The client's Oracle environment supported core insurance operations. They needed to move to a modern, cloud-native platform while ensuring that existing application logic, data integrity, and operational workflows continued to function as before.

- Platform Dependency:** Strong reliance on Oracle-specific features and scheduled jobs caused high vendor lock-in and expensive licensing fees. These costs limited the budget for creating new databases and writing new features.
- Scale and Complexity:** Managing a footprint of over 2,000 tables and 20TB across multiple business modules meant any migration carried real risk to business continuity and data integrity.
- Code Conversion Obstacles:** Oracle PL/SQL logic could not simply be transferred. Hundreds of views, materialized views, and procedures required a complete rewrite to function in PostgreSQL.
- Cut-over Downtime Risks:** Standard migration methods for a 20TB dataset would cause extended downtime, which was not feasible for an active customer-service and underwriting platform.

Goals

- Eliminate Oracle enterprise licensing fees to redirect budget to new development.
- Migrate the 20TB legacy database to a managed Amazon Aurora PostgreSQL environment.
- Preserve application logic and operational workflows without disruption.
- Complete the migration with minimal operational downtime.
- Set up a scalable, cloud-native foundation for future growth.

Solution Provided by Mydbops

Mydbops acted as the migration partner, delivering an end-to-end program focused on risk reduction, code conversion, and business continuity. The new architecture was built on Amazon Aurora PostgreSQL, providing a managed, highly available platform.

- Audit and Assessment**

Analyzed the 20TB database, mapping dependencies for 2,000+ tables and identifying exact conversion needs for the business logic.
- Code and Schema Migration:**

Rewrote 265 views, 7 materialized views, and about 165 procedures from Oracle PL/SQL to PostgreSQL logic. Legacy Oracle scheduled jobs were moved to native pg_cron jobs.
- Parallel Data Loading:**

Resolved data volume challenges by splitting data using primary-key ranges. This module-wise strategy allowed the team to load data concurrently, reducing the migration timeline.
- CDC-Based Synchronization:**

Used AWS DMS for Full Load plus Change Data Capture (CDC). This kept the target Aurora PostgreSQL environment synchronized with the Oracle source until the final cut-over, ensuring zero data loss.

Oracle to Amazon Aurora PostgreSQL Modernization Flow

Execution pipeline representing schema conversion, rapid loading, and continuous synchronization.

Oracle Source

- 20 TB Source Volume
- 2,000+ Tables
- PL/SQL DB Triggers
- Legacy Scheduled Jobs

AWS DMS Layer

- Primary Key Range Splitting
- Parallel Concurrent Loading
- CDC Synchronization
- Consistency Validation

Aurora Target

- Amazon Aurora PostgreSQL
- Rewritten Core Logic
- Native pg_cron Jobs
- Highly Available Platform

Results & Impact

Key Outcomes

- 100% Elimination of Oracle Licensing Costs**

Removing proprietary software licenses directly freed up the budget needed to build new databases and write new features.
- Modernization of 20TB of Data**

Successfully transferred a large dataset supporting policy, underwriting, and claims to a cloud-native platform, improving operational efficiency.

Post-Migration Business Capability Enhancements		
Operational Areas	Legacy Oracle Setup	Mydbops Aurora PostgreSQL
Licensing Model	High enterprise licensing fees and restricted vendor lock-in.	✓ Cost-effective cloud-managed setup with zero licensing fees.
Innovation Agility	New development blocked by high cost commitments on software licenses.	✓ Budget freed up to focus on application logic and feature additions.
Job Scheduling	Dependent on proprietary, Oracle-specific scheduling features.	✓ Clean cloud operations with native, open PostgreSQL pg_cron scheduling.
Scalability	Rigid architecture demanding heavy manual capacity provisioning.	✓ Managed cloud architecture supporting highly scalable operations.

- Preserved Business Logic**

Converted over 437 database code objects and managed 2,000+ tables. The application's core logic continued to function accurately, resulting in zero impact on daily operations.
- Reduced Migration Window**

By utilizing primary-key-based range splitting, Mydbops migrated 2.68 billion (268 crore) records for a single large table in 4 hours, lowering operational risk.

High-Volume Primary Key Range-Splitting Performance

Visualizing how the 2.68 billion record single table was processed concurrently to meet the 4-hour loading target.

Single Massive Table
ORACLE DB
2.68B Rows

DMS Stream 1 (Parallel Run)

DMS Stream 2 (Parallel Run)

DMS Stream 3 (Parallel Run)

DMS Stream 4 (Parallel Run)

Optimized Target
AURORA POSTGRESQL
Completed in 4Hrs

A Partner You Can Trust

For organizations running large data environments, the main challenge is finding a reliable partner to manage the transition safely.

Mydbops provides the technical database expertise needed to handle complex migrations. From cost reduction to cloud operations, we ensure your migration is cost-effective, secure, and aligned with your business demands.

[Consult with a Migration Expert →](#)

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