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Case Study

Intermodal Solution Provider Slashes Licensing Costs with Oracle to PostgreSQL Migration on Azure

As one of the largest providers and managers of essential transportation equipment in North America, this leading intermodal logistics company focuses on supporting its customers at every stage with comprehensive marine chassis solutions.

Challenges

The customer handles the leasing, managing, and selling of transport containers. Its business-critical applications include applications that track the movement of cargo from ports to warehouses.

The customer's Oracle licensing costs were significant, leading to them evaluating other database technologies. Both SQL Server and PostgreSQL were considered, with the customer ultimately choosing PostgreSQL due to the significant decrease in licensing costs. Datavail assisted with the assessment of both platforms through its dedicated SQL Server and PostgreSQL expert teams.

Technologies Used

Oracle 19c

PostgreSQL

Azure Virtual Machine

The customer was planning to migrate four applications from its current back-end on on-premises Oracle databases to PostgreSQL databases on Azure Virtual Machines (VM). Azure was selected due to the customers existing Microsoft tech stack.

Performance was a top priority for the customer, and the new PostgreSQL databases needed to meet and beat the existing Oracle databases.

Solution

Each application had its own complexities to manage throughout this migration process. The databases behind these applications had up to 12 TB of data, with dozens of tables. Over 40 services needed to be retrofitted, and there were 100s of queries that had to be assessed. Additionally, the database adapters had 400-600 queries hitting the custom database that needed to be assessed and over 50 PL/SQL procedures and functions.

Datavail, a Microsoft Advanced Specialization Solutions Partner, provided the customer with a proven PostgreSQL strategy to migrate to Microsoft Azure using its many years of experience moving complex Oracle database workloads to PostgreSQL. This end-to-end solution included the Oracle to Postgres strategy, licensing pricing, cloud options, detailed migration plan, and post-migration support.

The Datavail team used automation scripting to incrementally migrate data as part of the Change Data Capture process.

Results

Massive Savings on Database Licensing Costs

Migrating away from Oracle and opting for PostgreSQL over SQL Server substantially decreased the licensing costs that the customer needed to worry about. This license cost optimization freed up this budget for other essential initiatives.

Minimal Disruption to Daily Business Operations

Datavail's experience at handling complex Oracle to PostgreSQL on Azure migrations made it possible to minimize the downtime needed for the cutover window. Database optimization during the migration process ensured that the Postgres databases provided comparable performance to the existing systems.

Worry-free Scalability

As the customer business goals evolve over time, it no longer needs to worry about holding off on scalability due to budget constraints caused by commercial database licensing. The Azure migration also provides access to flexible scaling and easy integration with other Azure services.