

Case Study

FinTech Company Improved High Availability and Reduced Costs by Migrating On-premises Oracle Databases to MariaDB Enterprise

Digital lending continues to gain ground as FinTech solutions evolve to meet the needs of consumers and financial organizations. [Grand View Research reports](#) that the current market size was \$5.8 billion in 2021, and it's expected to grow at a rapid 25.9% compound annual growth rate (CAGR) between 2022 to 2030.

Datavail's customer, a leading provider of digital loan solutions, wanted to better position themselves for this ongoing growth. They were looking for help to migrate and convert their existing on-premises Oracle databases to MariaDB Enterprise to lower their operational costs and gain the ability to scale quickly and reliably with their growth.



The Challenge

The customer was dealing with expenses associated with managing on-premises infrastructure, along with the licensing costs associated with Oracle. However, they had limited in-house skills to migrate to an open-source database like MariaDB.

They also faced availability issues, as they only had two Oracle Data Guard nodes in the primary data center region. During unexpected outages or planned maintenance, the customer was vulnerable to forced failover to the secondary data center if something happened to the remaining standing node.

The customer initially tried to execute the Oracle to MariaDB migration process on their own, using Oracle Golden Gate. However, they ran into several challenges related to schema compatibility and configuration that caused errors that impeded the successful completion of the database migration.

This was a large mission-critical database containing multiple TBs of data. The customer needed a database migration partner experienced in both MariaDB and Oracle, and the conversion process between the two, to help them achieve their business and technical goals.

The Solution

The customer turned to Datavail to leverage our deep technical expertise in all leading database technologies and our partnerships with Oracle and MariaDB to make this project a success.

Multiple vendors were involved in the creation of the customer's database migration strategy to move on-premises Oracle databases to MariaDB Enterprise and resolve the issues that had previously stopped this process. We worked with all parties to refine the migration strategy.

We used Oracle Golden Gate and MariaDB Enterprise Tooling to migrate from Oracle to MariaDB 10.5.x. Our highly experienced DBAs assessed the environment to identify the barriers standing in the way of the Oracle to MariaDB migration, tuning the system for Golden Gate, making schema modifications, and implementing other required changes.

The high availability footprint doubled with standard MariaDB Replication across six database servers, replacing Oracle Data Guard. To provide a suitable alternative to Oracle Real Application Clusters, we used MariaDB Galera Cluster to provide multi-master clustering, which was also combined with MariaDB Replication to the disaster recovery site.

We improved the customer's scalability by using MariaDB's MaxScale Advanced Database Proxy for Read-Write splitting between the nodes and automatic failover and replication recovery, and implemented several MariaDB Enterprise security best practices and encryption methods.

The Results

The customer enjoys greater peace of mind through the improved high availability and stability of their database architecture, knowing that their mission-critical system had better resiliency in the face of the unexpected.

Since the customer leveraged Datavail's deep expertise across MariaDB, Oracle Database, and other leading technologies, they do not have to face another potentially failed migration that cost valuable time and resources. Our expert DBAs quickly identified the issues and implemented an Oracle to MariaDB migration that got the databases running smoothly in the new environment .