



OPTIMIZING DATABASE COSTS: A CLIENT'S JOURNEY FROM MSSQL TO POSTGRESQL WITH AHANA



Managing the growing volume of data presents both opportunities and challenges for businesses. While data is an asset, managing it efficiently can be expensive. Database licensing costs can reduce profits, hindering a company's ability to scale and innovate. This case study explores how Ahana partnered with a client to solve this challenge through a database migration.

Client Profile:

Our client, established in 2000, has been a leading provider of SaaS-based solutions since 2007. Through their global direct sales channel, they've cultivated a robust user base exceeding 30,000 active users across various industries, including airlines, logistics providers, and global CPG companies.

The Challenge:

The client, a company with an established software application and a loyal customer base, faced a dilemma. Their current database, built on Microsoft SQL Server (MSSQL), offered robust functionality but came with a hefty licensing cost. Seeking a more cost-effective solution, they explored migrating to an open-source alternative. Initially, MySQL was considered, but Ahana's team identified PostgreSQL as a more suitable option.

While PostgreSQL offered cost savings through its open-source nature, the migration process itself presented challenges. The client's database was complex, containing nearly 100 tables, intricate stored procedures, and functions. The concern was to ensure the seamless conversion of these procedures, especially those generating multiple result sets.

The Approach:

Ahana demonstrated the benefits of migrating to PostgreSQL. This involved the following steps.

Database Access and Object Identification: We gained access to the database server, identifying various objects like tables, procedures, and functions.

Schema and Object Conversion:

- Converted all table-related schemas to Postgres.
- Identified and converted procedures and functions from MySQL to Postgres, categorizing them by type.

Dynamic SQL Conversion and Trigger Functions Creation:

- Converted dynamic SQL procedures into Postgres-compatible format.
- Created necessary trigger-related functions for the Postgres migration.

Data Migration and Testing:

- Migrated data into new table structures and procedures in Postgres.
- Executed procedures on both old and new systems with identical parameters, ensuring result consistency.

Application Integration and Validation:

- The application team connected to the Postgres server, validating its functionality with the new database setup, confirming successful migration.

Business Impact:

- Ahana standardized the migration process and provided a template that facilitated migrations for over 300 existing customers, helping them save license costs by avoiding individual migrations.
- The templated approach reduced the effort needed for both data and code migration.
- Despite the initial complexity, the first migration served as a template for subsequent ones due to database similarities.
- Subsequent migrations were completed within a week, compared to the initial 3–6-month timeframe.
- This migration benefited both our client and their new customers.

Conclusion:

This case study demonstrates the power of a collaborative approach between a client seeking cost optimization and an IT solutions provider like Ahana. Through a well-planned migration strategy and innovative scripting, Ahana delivered a solution that addressed the client's financial concerns while maintaining application performance. This project shows Ahana's dedication to offering affordable database solutions that help businesses succeed.

About Ahana Systems and Solutions:

Ahana Systems & Solutions is a leading IT Infrastructure Management Services and Digital Transformation company based in Bengaluru, India. Our expertise extends to a wide range of solutions, including Cloud, RPA, DB & EDW, BI & Analytics, and Application Development. Our 100+ roster of clients relies on us for our deep domain expertise, skilled resource base, and proven partnership with the best technology providers.

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