rSTAR TECHNOLOGIES

AI Starts Here: Reengineering Retail's Data Core with Google BigQuery

CASE STUDY

Overview

Imagine a thriving national retailer with its business running on a 25-year-old Sailfish (DB2) data warehouse. But the clock is ticking: vendor support would soon vanish, leaving the company vulnerable to data blind spots and inefficiencies. The retailer needed to migrate human resources, supply chain, finance, tax, and other data into a cutting-edge cloud platform. However, years of system modifications and staff turnover meant they didn't have reliable data maps or documentation.

rSTAR's experts unraveled old tables, views, scripts, stored procedures, and complex SQL, reconstructing everything for seamless integration with Google BigQuery. The result: A powerful, scalable data backbone built to handle enormous data volumes, turbocharge analytics, and enable real-time reporting. This modernized system solves today's business needs and ensures the retailer is AI-ready.

CHALLENGE & SOLUTION

The Challenge

Vendor Support Ends for Legacy System

- Vendor support for the system was ending and migration delays could lead to unexpected downtime and costly vulnerabilities.

Lost Data Maps and Knowledge Gaps

- Years of system changes and staff turnover left the company without reliable data maps or documentation.

Massive Transaction Volumes

- The company managed two major retail chains and had to migrate large volumes of daily data such as SKUs, inventory, and dynamic pricing at once.

Strict Time and Operational Pressures

- The migration required a rapid, error-free transition to ensure uninterrupted business operations and the preservation of critical insights.

The Solution

Reverse Engineered Legacy Data Pipelines

- rSTAR used migration Accelerators to reverse-engineer the retailer's ETL system and mapped more than 4,600 tables, 1,800 views, 900 scripts, and 250 XML files.

Automated Testing and Seamless Validation

- All assets migrated to BigQuery, with automated testing ensuring smooth business operations.

Modernized ETL Processes

- Legacy bash scripts and stored procedure-driven ETL pipelines were adapted for cloud compatibility, enabling seamless integration of both historical and real-time data. .

50% Faster Migration

- The migration was completed in half the time estimated by other vendors.

Technologies Involved

rSTAR Accelerators for Data Migration and Modernization

Google Cloud Platform

SAP Business Objects

MicroStrategy

BigQuery

RESULTS

100% AI and Future-Ready Data Architecture

The new platform unleashes a modern data architecture built for advanced analytics and artificial intelligence. With scalable cloud technology, the retailer now has the agility to add cutting-edge solutions such as AI.

Streamlined 90% of Schema, ETL, Data Migration Tasks

rSTAR Accelerators streamlined 90% of the schema, ETL, and data migration tasks, reducing costs and business disruptions.

Over 12,000 Reports Work Natively with BigQuery

The entire data warehouse and reporting system transitioned smoothly, allowing end-users to continue their work without interruption. Over 12,000 reports were updated to work natively with BigQuery, ensuring insights are always at users' fingertips.

Partners with Deep IT Knowledge:

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