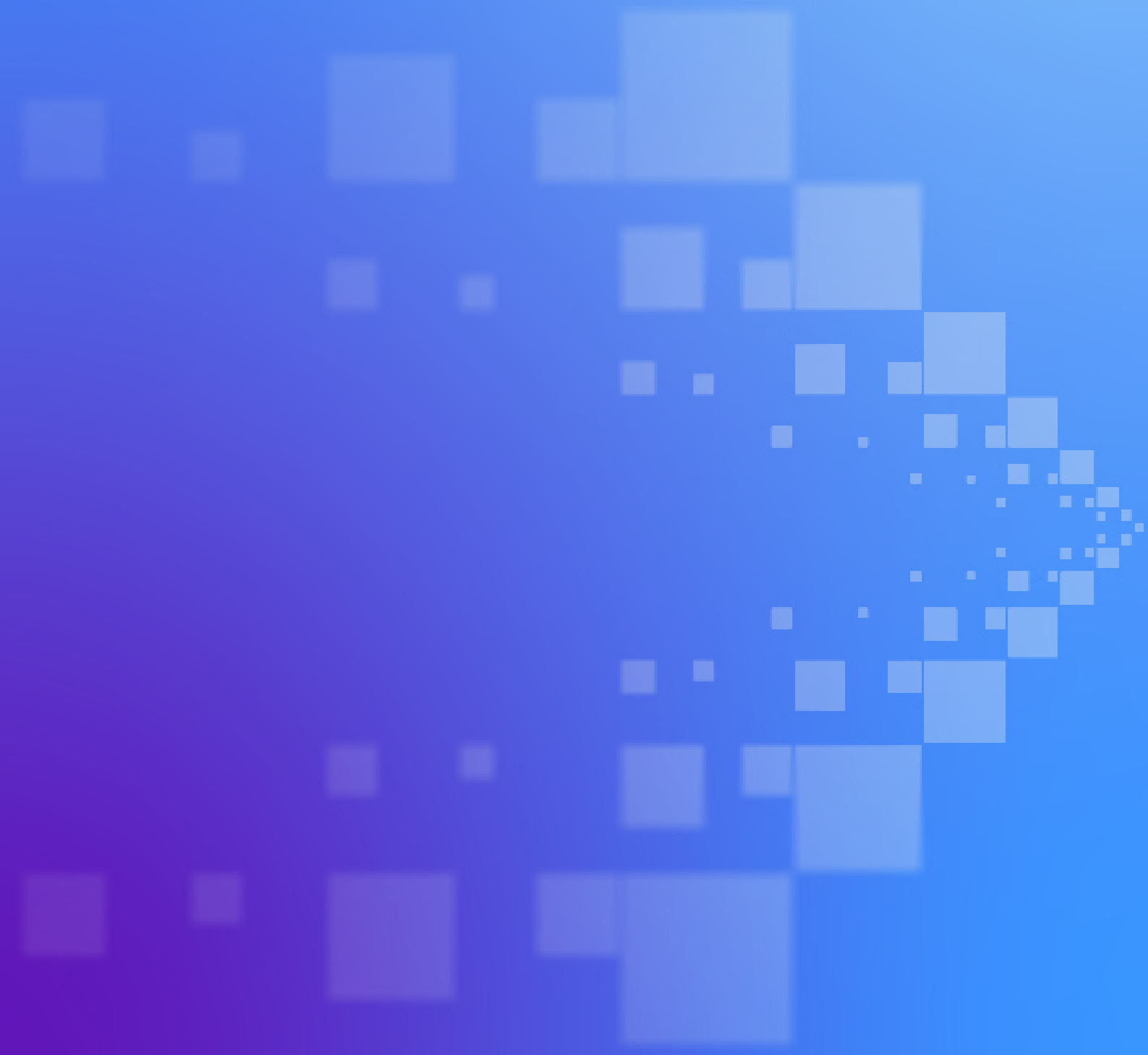


Major U.S. retailer seamlessly transitions to a secured cloud-based data warehouse

HCLTech helped the company achieve better visibility in sales, enhance planning and optimize operations



A cloud-based data warehouse solution can be the key for enterprises looking to reduce costs, manage inventory more efficiently, enhance decision-making and gain better consumer insights.

One of the largest office supply retailers in the U.S. wanted to migrate its legacy on-premise data warehouse to the cloud to achieve better visibility on retail product sales, improve its retail store strategy and enhance optimize operations. The client partnered with HCLTech to accelerate their progress and build future-ready resilience.

The Challenge:

Migrating to on-cloud data storage without disruption

The client's system of records required a data-driven technology platform and modern database solution to enable faster inventory decision-making. The existing on-premise database system, which used data warehousing and data marts to provide retail store sales performance, was approaching the end of support, and renewing it would be

prohibitively costly. The client also struggled to maintain hardware applications and databases that stored historical records, which required constant maintenance support of the on-premise data warehouse. Historical records went back only two years, and the company wanted to mine a richer vein of historical data.



The Objective:

Improving product catalogs

The client needed to identify seasonal patterns such as back-to-school and holiday purchases and pre- and post-COVID shopping behaviors by conducting retrospective analyses on large volumes of store data through simplified

dashboard viewing. The retailer also needed to offer products in a more cost-effective manner and enhance the overall customer shopping experience. For those reasons, the solution needed to be fully automated and configurable.

The Solution:

Seamless implementation and migration to the Snowflake data cloud

Our deep understanding of legacy enterprise databases and proven expertise in cloud migration made HCLTech the ideal choice to help the client deploy a full-stack cloud data warehouse solution that would be secure and reduce downtime.

A thorough assessment of the client's technology landscape and business environment to determine the hardware and software used in the on-premise data warehouse. Multiple POCs on Snowflake and other were run alternatives, which clearly demonstrated Snowflake's higher efficiency. Comparative cost and performance matrices included:



Performance batch processing



Performance query ease of conversion



Framework integration



Cost of migration

These matrices significantly boosted the client's confidence in Snowflake.

To execute the solution, HCLTech leveraged our cloud-migration expertise by:

- Using Snowflake to rationalize the client's ETL, ELT and Teradata objects by 30 percent based on the usage and similarity analysis
- Building raw, refined and confirmed layers on Azure Blob and Kafka
- Enabling ingestion of data from operational resources to the raw layer in accordance with requirements
- Refining, transforming and loading data from the raw layer to the confirmed layer data store to enable access for the reporting and data science teams
- Removing additional layers built on top of Teradata in the SQL server
- Enhancing the reporting/dashboard platform to consume data from Snowflake



The impact:

Reduced costs, better control over inventory and optimized consumer insights

The project yielded several desired results:

- The seamless migration to Snowflake helped the client reduce computing and storage costs by more than 50 percent, or \$2 million per year
- The accelerated migration process reduced TCO by 40 percent and siloed datasets by 30 percent
- Snowflake's enhanced query performance allowed us to stick to current SLAs for daily data refreshes
- The client standardized all data assets in Snowflake
- Customized dashboard reports for each product and product category gave the client much better control over inventory and the ability to create targeted marketing campaigns
- The scalable, configurable platform made it feasible to meet additional data and reporting requirements, including the ability to mine a richer vein of historical data
- The new environment increased security and reduced downtime

Through this solution, HCLTech accelerated the client's long-term growth plans and efficiency goals. The project's overwhelming success spurred the client to engage HCLTech in migrating their other data technologies and platforms to the cloud. These initiatives promise to boost the company's business even further.