

## Case Study

# Retail Merchandising Partner Improves Reporting with Azure Cloud

A retail company that provides warehousing, distribution, and merchandising solutions for retailers across the U.S. and Canada needed to update its existing data architecture with no on-premises investments to solve performance and security challenges.

## Technology

- SQL Server
- Excel
- Power BI

## The Challenge

The client was using an on-premises SQL Server OLTP database that fed into reporting tools such as Power BI and Excel. This architecture suffered from serious challenges:



**Design:** Outdated on-premises architecture with incorrect data types and a lack of data partitioning.



**Performance:** Missing and unused indexes, page splits and fragmentation, deadlocks, and a sub-optimal location for the temporary database.



**Security:** Linked servers with security holes, unaligned access levels, and lack of a SQL Server security audit.



**Reporting:** No centralized repository for internal or external Power BI reporting, and little direction from previous key stakeholders.

## The Solution

Since the client was already using Microsoft analytics tools on-premises, migrating to the Azure cloud was a good choice. Datavail recommended several “quick wins” that helped the client see fast results, including:

- Partitioning data to improve scalability and performance.
- Use of proper data types and indexing and better choices of foreign keys.
- Making changes to system design to eliminate deadlocks.
- Periodic reviews of security and access policies.
- Evaluating ways to reduce the cost of software licenses.

In particular, Datavail recommended that the client migrate to Power BI in the [Azure cloud](#), which would be flexible and scalable enough to meet the client’s current needs and future growth. Datavail helped the client use services such as Azure Data Factory and Azure Data Lake Storage to design and optimize this powerful and efficient analytics platform.

## The Results

With their new solution in place, the client now enjoys the following benefits:

- A single source of truth for reporting in Power BI as well as Azure Synapse
- Major improvements in scalability and performance
- Reduced software license costs with zero capex
- Additional tools to optimize the performance of their analytics on an ongoing basis
- Full support of their Azure environment and Power BI team