Replatforming Data for the AI Era – Unlocking Scalability, Performance, and Cost Efficiency

How Enterprises Are Transforming Legacy Data Platforms and Databricks migration with AI, Cloud, and Modern ETL Solutions.

brillio

Real-World Success Stories

Scaling to 70M+ Daily Transactions with AI-Powered Data Platform Modernization

The client

A fintech company offering digital investment solutions and embedded finance infrastructure.

Before:

The client's data estate relied on Ascend ETL and Snowflake, but it lacked the scalability and efficiency required to process high-volume transactional data while maintaining regulatory compliance. The existing architecture struggled with heavy data workloads, creating inefficiencies in processing and compliance reporting.

Solution:

Brillio modernized the data platform by migrating to AWS, Databricks, DBT, and Snowflake, ensuring seamless data handling at scale. Databricks Unity Catalog and advanced Databricks pipelines were leveraged for optimized processing. A standardized data model was implemented for FINRA reporting, ensuring compliance and operational efficiency.

Impact:

- 70M+ transactions processed daily
- Strengthened compliance with standardized FINRA reporting

Unlocking Scalable Education Insights with 30+ New Data Sources

The client

An educational technology company providing data-driven solutions for early childhood learning.

Before:

The client's data platform lacked agility, making it difficult to incorporate new data sources and derive insights effectively. Their existing setup struggled to manage data ingestion, transformation, and governance efficiently.

Solution:

Brillio modernized the data platform using AWS, Kafka, Databricks, MWAA, and Python.
The re-architecture effort included complete data ingestion, transformation, processing, and governance, ensuring a scalable and future-ready analytics ecosystem.

Impact:

- Over 30 additional data sources integrated
- Scalable and agile architecture for future expansion

35% Efficiency Boost with AI-Powered Data Lake for Global Supply Chain Optimization

The client

A leading logistics and supply chain company specializing in temperature-controlled warehousing and distribution.

Before:

The client faced fragmented data across warehouses, impacting operational visibility and supply chain efficiency. The lack of automated data quality controls and governance mechanisms created inefficiencies in warehouse tracking and energy consumption analysis.

Solution:

Brillio consolidated data across warehouses and deployed a modern Cloudera Data Lake solution. ETLs were migrated from Apache NiFi and Pulsar to Databricks and Kafka, ensuring better data governance. Automated data quality and governance mechanisms were implemented using Spark, Hive, AirFlow, and Impala.

Impact:

- 35% increase in operating efficiency
- Real-time data visibility for shipment tracking, energy consumption, and warehouse optimization

Cutting 30% Costs by Migrating from Teradata to AWS for a Leading Energy Provider

The client

A major energy and utilities provider focused on electricity and natural gas distribution.

Before:

The client operated on an on-premise EDW solution (Informatica/Teradata), which posed scalability limitations and high infrastructure costs. The rigid system hindered advanced analytics, data flexibility, and operational efficiency.

Solution:

Brillio re-architected the data platform, migrating existing functionalities to AWS and Databricks from Teradata and Informatica BDM. The modern cloud-based architecture provided a single platform for heterogeneous data, reducing operational costs, increasing flexibility, and enabling advanced analytics and streaming capabilities.

Impact:

- 30% reduction in storage cost
- Enabled self-service analytics for improved efficiency

Driving $17M Revenue Growth with AI-Powered Analytics for Faster Go-to-Market

The client

A financial services leader specializing in debt resolution, credit risk management, and financial analytics.

Before:

The client faced challenges in collaborating with B2B customers due to limited real-time data-sharing capabilities. Inefficiencies in debt handling and credit risk assessment slowed decision-making, impacting business growth.

Solution:

Brillio built a greenfield data lake and lake house powered by Databricks on Azure to enable self-service business intelligence and machine learning model deployment. This allowed real-time data sharing with customers, improving debt resolution and credit risk assessment.

Impact:

- $17M+ revenue impact
- 3.7x return on investment

Accelerating ETL Code Conversion with AI-Driven Automation

The client

A financial services leader specializing in debt resolution, credit risk management, and financial analytics.

Before:

The client relied on legacy SAS-based ETL scripts, which limited performance, data governance, and scalability. The existing ETL framework struggled with inefficient processing and lacked flexibility for future enhancements.

Solution:

Brillio modernized the client's ETL processes by converting SAS ETL to Databricks PySpark using an AI-driven code conversion accelerator. The transformation included assessing existing Alteryx scripts, selecting key scripts for a pilot execution, and automating the conversion with LLM-powered models. Automated validation ensured accuracy, while a human-in-the-loop review process refined the converted code for seamless deployment.

Impact:

- 450+ ETL scripts converted within a year
- Enhanced performance and faster feature rollout
- Easier maintenance and extension with a readily available talent pool

Enhancing Scalability and Efficiency with R-Based ETL Modernization

The client

A leading education technology and enrollment services provider helping institutions optimize student recruitment and retention.

Before:

The client relied on SAS-based ETL workflows, which were outdated and lacked flexibility for large-scale education data processing. A modern solution was needed to improve efficiency and reusability.

Solution:

Brillio migrated the client's SAS-based ETL system to an R-based ETL on Azure and Databricks, improving scalability and data optimization. The team analyzed 700+ unique SAS scripts, converting them into reusable R packages and PySpark jobs while implementing parameterized R scripts for easy tuning. The new system enhanced automation, reduced processing time, and ensured seamless transition.

Impact:

- 2-year transformation of 700+ scripts with enhanced reusability
- 40% reduction in file processing time
- Scalable and maintainable solution with an easily available talent pool

ABOUT BRILLIO

Brillio is one of the fastest growing digital technology service providers and the partner of choice for many Fortune 1000 companies seeking to turn disruptions into competitive advantages through innovative digital adoption. We help clients harness the transformative potential of the four superpowers of technology: cloud computing, Internet of Things (IoT), artificial intelligence (AI) and mobility. Born digital in 2014, we apply our expertise in customer experience solutions, data analytics and AI, digital infrastructure and security, and platform and product engineering to help clients quickly innovate for growth, create digital products, build service platforms, and drive smarter, data-driven performance. With 17 locations across the US, the UK, Romania, Canada, Mexico, and India, our growing global workforce of 7,000 Brillians blends the latest technology and design thinking with digital fluency to solve complex business problems and drive competitive differentiation for our clients. Brillio was certified by Great Place to Work® in 2021, 2022, 2023, and 2024.

https://www.brillio.com/
Contact Us: info@brillio.com

brillio