Case Study

brillio

Enabling a Product Master Data System of Record for a Global Telecom Leader

Modernizing Product Data Pipelines with a Cloud-Native, Metadata-Driven Architecture

For a global leader in telecommunications, IT, and consumer electronics, with operations spanning more than 100 countries across seven major regions, product master data sits at the center of everything from engineering to downstream business systems. The organization relied on Salesforce-based integrations to move product master data from its PLM system into consuming platforms. While functional in the past, this approach had become increasingly fragile.

Critical transformation logic was embedded deep inside Salesforce Apex batch jobs, tightly coupled to legacy platforms that were approaching upgrade or decommissioning cycles. This created operational risk, limited scalability, and made even minor changes difficult to implement without manual intervention.

What the client needed was not another incremental fix, but a modern Product Master Data System of Record that could scale globally, eliminate manual steps, and operate as a governed, cloud-native data pipeline aligned with the client's enterprise architecture.

Rethinking the Product Master Data Architecture

The objective of the engagement was to modernize the entire PMD SOR integration pipeline using a cloud-native, scalable, metadata-driven architecture built on Azure. At the same time, the client aimed to fully externalize transformation logic that had historically lived inside Salesforce, replacing it with an automated and governed data pipeline.

Brillio partnered with the client to design and implement a new Azure-based ingestion, transformation, and orchestration framework leveraging Azure Data Factory (ADF) for orchestration and Azure Databricks for scalable data processing. The result was a complete architectural shift, from platform-bound logic to a flexible, cloud-native data foundation.

Building a Metadata-Driven Transformation Engine

At the core of the solution was a new Azure-native ingestion, staging, and transformation pipeline. Product master data originates from the client's enterprise PLM system, which serves as the authoritative system of record. Data is ingested through a centralized enterprise integration layer, providing a governed and scalable entry point into the platform.

Once ingested, data flows through a layered architecture hosted on Azure Data Lake Storage (ADLS). A landing layer captures incoming data, followed by staging and final layers where transformations are executed using Databricks Spark. All transformation logic previously embedded in Salesforce Apex batch jobs was reverse-engineered, externalized, and rebuilt in Azure using Spark-based processing.

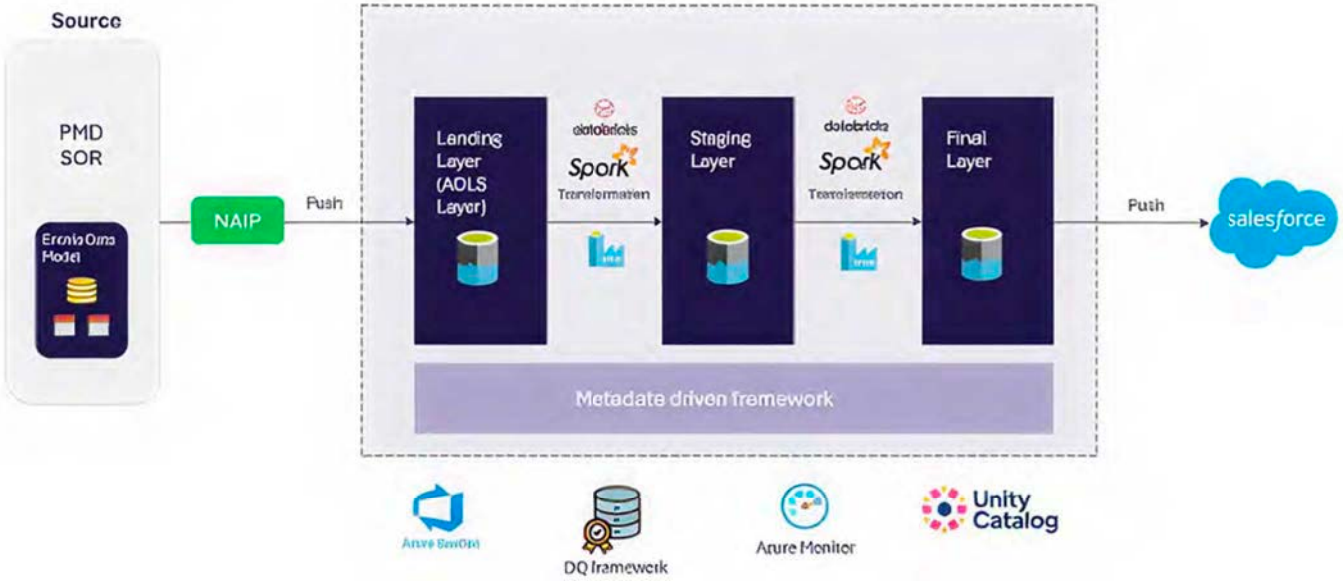
Crucially, Brillio implemented a metadata-driven orchestration framework, eliminating hard-coded logic. Transformation rules are now configurable through metadata, enabling faster onboarding of new attributes or objects and significantly improving flexibility and reuse across pipelines.

Scaling with Governed, Cloud-Native Processing

Azure Databricks serves as the core compute layer for all transformations that were previously executed inside Salesforce. Autoscaling clusters dynamically allocate compute based on workload demands, supporting parallel processing for high-volume product master datasets without over-provisioning resources.

Databricks notebooks implement a configurable, metadata-driven framework that enables rule-based transformations mapped from legacy Salesforce Apex jobs. Downstream, the transformed data is pushed back into Salesforce in its final, curated form, ready for consumption by business and operational systems.

The platform is fully integrated with Azure DevOps for pipeline management, Azure Monitor for observability, a dedicated Data Quality framework for automated checks, and Unity Catalog to support governance and data management across the environment.



From Manual Pipelines to a Scalable System of Record

By modernizing the PMD integration architecture end-to-end, the client achieved a step change in operational efficiency and scalability. Manual operational steps for pipeline execution were completely eliminated, enabling fully automated data flows across regions and systems.

Databricks autoscaling ensures efficient resource utilization with no over-provisioning, while automated data quality checks in Azure improve trust and reliability across product master datasets. The metadata-driven design simplifies maintenance, accelerates change, and significantly improves reusability, laying a strong foundation for future analytics and ML-driven use cases built on trusted product data.

- 100% elimination of manual operational steps for pipeline execution
- No over-provisioning of resources
- Automated DQ Checks in Azure
- Improved maintenance and reusability

ABOUT BRILLIO

Brillio is a digital technology services company that drives AI-first engineering and design-led experiences for global enterprises. Born digital in 2014, its consulting-led services span Customer Experience, Data & AI, Product Engineering, and Digital Infrastructure. With an industry-leading NPS of 71, Brillio accelerates time to market through its proprietary BrillioOne.ai platform, powered by AI-ready talent with deep domain expertise.

Brillio is the official Digital Transformation Partner and the official Data and AI Services Provider of Atlassian Williams Racing. Brillio partners with leading technology providers including Microsoft, AWS, Google Cloud, Salesforce, Adobe, Databricks, and Snowflake and operates with 6,000+ “Brillians” across 15 global delivery centers. Consistently recognized as a Great Place to Work® since 2021, Brillio blends innovation, talent, and purpose to deliver measurable outcomes for clients and fulfilling careers for employees.

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