Case Study

Migrating On-Premise Data Marts to Azure Databricks to Secure 30% Processing Time Savings Across a 900 Cr+ Revenue Banking Footprint

Client Overview

Transitioning from a Non-Banking Financial Company (NBFC) to a Small Finance Bank (SFB) requires scalable, low-latency data infrastructure to support growing regulatory and operational demands. This case study details the cloud data warehouse transformation executed for an SFB generating 900 Cr+ in revenue across 4 states. By replacing legacy on-premise data marts with a unified Azure Databricks lakehouse architecture using Delta Tables, the project successfully streamlined daily ETL jobs—delivering a 30% reduction in processing times and establishing native connectivity for Qlik and Spotfire BI platforms.

The Challenge?

Data Disparity

On-premise data marts lacked a centralized source of truth, creating reporting mismatches across departments.

Legacy Infrastructure Limits

On-premise databases could not support advanced future-state requirements like Auto ML and MLOps.

BI Integration Overhead

Complex, manual connection requirements for downstream business intelligence tools like Qlik and Spotfire.

Solution Delivered

Azure Databricks Orchestration

Transitioned all ETL routines to automated, scheduled Notebook workflows within Azure Databricks.

Delta Lake Staging Architecture

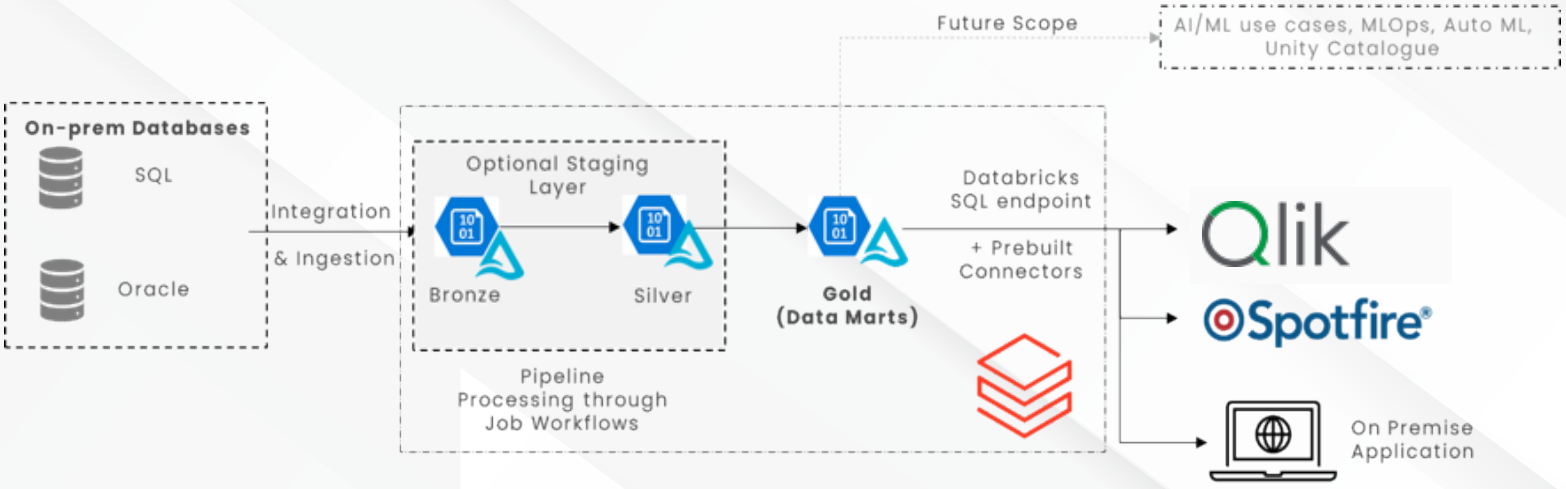
Implemented a Bronze-to-Silver-to-Gold data pipeline, storing final aggregated Data Marts as high-performance Delta Tables.

Prebuilt BI Connectors

Connected Qlik, Spotfire, and custom web applications directly to Delta Tables using native Databricks SQL Endpoints.

Built-In API Layer

Enabled direct API development within Databricks to serve downstream web applications efficiently.



The Impact

30% Processing Time Savings

Accelerated heavy analytical workloads using Spark-optimized compute clusters.

End-to-End Platform Consolidation

Covered the complete data lifecycle—ETL, data engineering, data science, and BI—within a single environment.

Zero Third-Party Tool Dependency

Eliminated standalone third-party ETL and data management services, lowering software overhead.

Simplified Governance & Collaboration

Consolidated DevOps, engineering, and data science workflows with simplified version control and workspace management.

Outcome

Modernizing legacy data marts is essential for growing banking institutions seeking to scale operations and adopt advanced analytics. By establishing a unified Azure Databricks architecture, this Small Finance Bank successfully eliminated processing delays and tool fragmentation. The solution provides the performance, scalability, and structural flexibility required to lower operational costs, streamline governance, and support a data-driven banking strategy.

Interested in a customized solution designed to meet your unique requirements and achieve comparable results?

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