

Enterprise Application Data Management Platform

Bank of America | Data Engineering Project
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Project Overview

Managed mission-critical data infrastructure supporting 5,400+ enterprise applications across Bank of America global operations, ensuring data availability, integrity, and compliance for one of the world largest financial institutions.

Scope & Scale

- Applications Managed: 5,400+ production applications
- Data Volume: TB-scale data processing daily
- Stakeholders: 10,000+ internal users
- Uptime SLA: 99.95% for critical financial systems
- Compliance: SOX, GDPR, banking regulations

Technology Stack

Cloud: AWS (S3, Glue, RDS, Redshift, Lambda), Azure (Data Factory, Synapse)
Processing: Databricks, PySpark, Python, SQL
Orchestration: Apache Airflow, Kafka
Storage: Delta Lake, S3, Redshift

Key Achievements

- ✓ Reduced data processing failures by 78%
- ✓ Improved data quality scores from 82% to 97%
- ✓ Cut incident resolution time by 65% (4 hours to 85 minutes)
- ✓ Reduced storage costs by 40%
- ✓ Scaled platform to handle 3x data growth
- ✓ Optimized query performance by 10x
- ✓ Processed 5,400+ application data feeds with 99.97% uptime
- ✓ Automated 85% of manual data operations