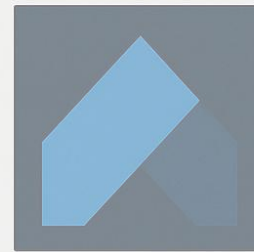


Modernizing Our Fraud Detection & AML Capabilities

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**OUR
BANK**

Real-Time Fraud Detection & AML Compliance in Global Banking



Rising volumes and complexity of fraud: card abuse, identity theft, money laundering



Manual reviews and batch-only systems are no longer fast or scalable enough



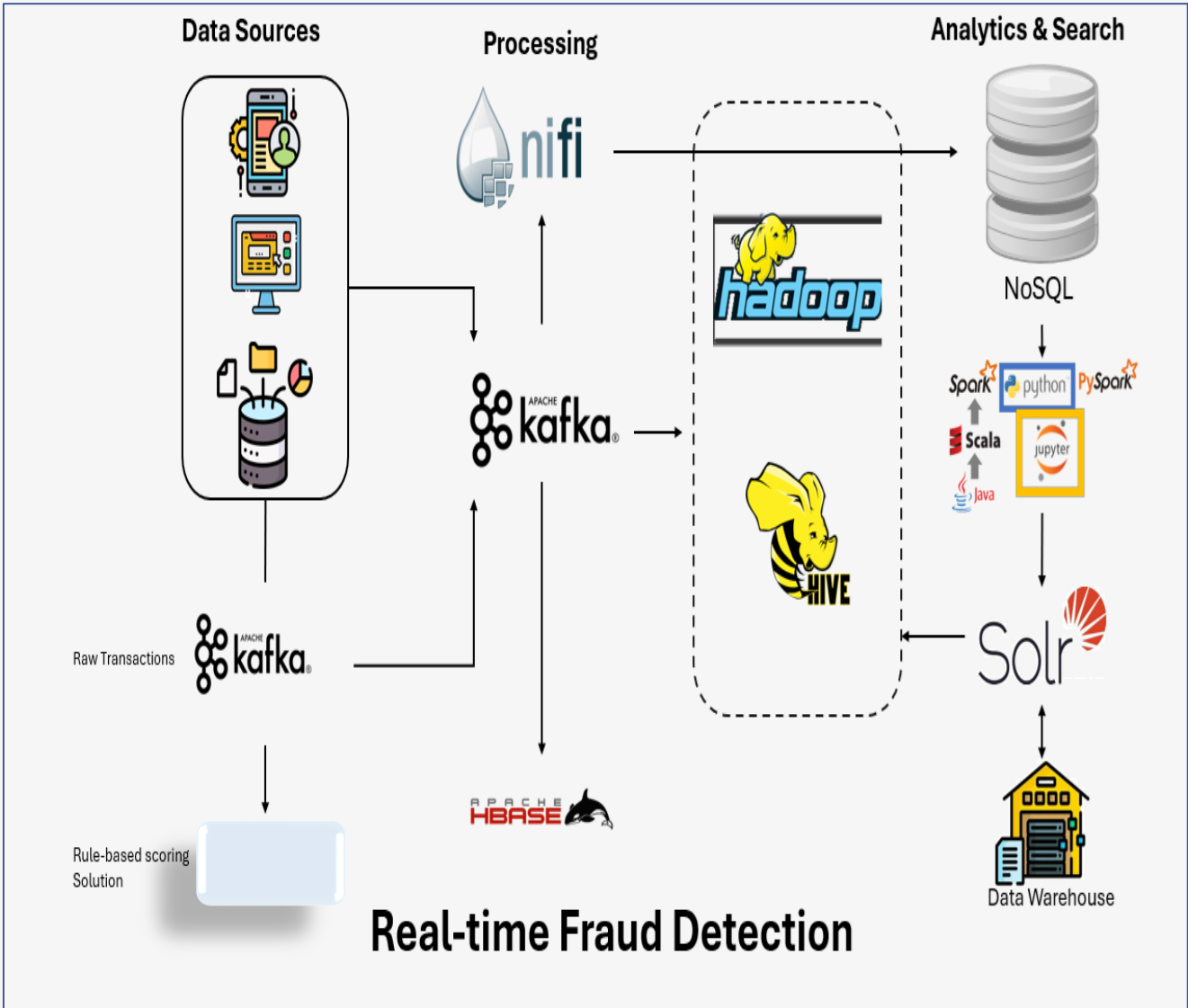
Delayed response undermines security, compliance, and customer trust



To stay ahead, we must build a system that:

- Identifies fraudulent activity in real time
- Analyzes transaction and behavioral data for anomalies
- Fast alerts and automated responses
- Transparent, auditable, and compliant systems

Proposed Architecture (High-Level)



NiFi ingests data from digital apps, ATMs, systems.

Kafka distributes streams to consumers: Actimize, Spark, storage.

Spark + Hive analyze historical data and patterns at scale.

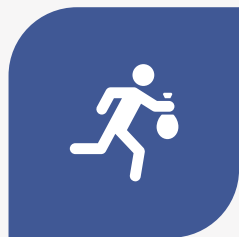
HBase maintains user behavior profiles.

NoSQL DB stores scoring metadata for APIs and dashboards.

Solr enables fast search for flagged transactions and audit trails.

Jupyter + Spark empower analysts with interactive data science.

Delivering Trust, Protection, and Compliance at Scale



REAL-TIME FRAUD
DETECTION & SCORING
WITH KAFKA + ACTIMIZE



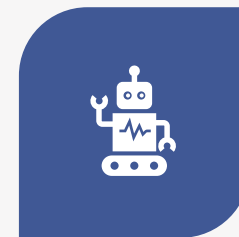
BEHAVIOR-BASED
ANALYSIS USING HBASE +
SPARK



COMPLIANCE & AUDITS
POWERED BY HIVE + SOLR



TRANSPARENT ALERT
SYSTEM WITH NOSQL +
DASHBOARDS



SCALABLE, MODULAR
ARCHITECTURE READY TO
EVOLVE WITH OUR DATA