

TRANSFORMING FRAUD DETECTION AND DATA INSIGHTS FOR A DIGITAL-FIRST FINANCIAL INSTITUTION WITH AI-POWERED ANALYTICS

Achieved real-time fraud detection, reduced manual effort by **60–80%**, and processed 2TB of data daily for a digital-first financial institution using Apexon’s Customer AIQ solution

ENGAGEMENT BACKGROUND

Apexon partnered with a digital-first financial institution to modernize its data infrastructure and enhance fraud prevention. The engagement focused on deploying Apexon’s Customer AIQ solution, powered by the IC4 data accelerator, to deliver a cloud-based analytics platform. The solution enabled real-time fraud detection, automated data ingestion, and streamlined metadata management, significantly improving operational efficiency and compliance.

The collaboration involved close coordination with the client’s teams to integrate the solution with Azure and Databricks, ensuring scalability, security, and regulatory compliance. Apexon’s solution empowered the client to combat sophisticated fraud, accelerate insights, and strengthen operational resilience.

ABOUT THE CLIENT

The client is a leading digital-first financial institution serving millions of customers across consumer credit, digital banking, and lending segments. Committed to data-driven customer experiences, the client prioritizes operational resilience and trust. With increasing fraud sophistication and regulatory demands, the client required a scalable, AI-driven solution to enhance fraud prevention and data management.

THE CHALLENGE

Overcoming Data and Fraud Management Inefficiencies

The client faced significant challenges in its data infrastructure and fraud detection processes, impacting risk management and operational efficiency:



SILOED DATA ANALYSIS

Disconnected teams and data silos created blind spots, slowing fraud investigation workflows.



DISPARATE TOOLS

Legacy systems and modern platforms led to inconsistent data handling and fragmented fraud detection.



MANUAL REPORTING BOTTLENECKS

High report volumes required extensive manual processing, delaying anomaly detection.



LACK OF SOURCE CODE MANAGEMENT

Absence of centralized version control slowed updates and increased errors.



INEFFECTIVE FRAUD CONTROLS

Existing mechanisms lacked the intelligence for early, accurate threat detection.





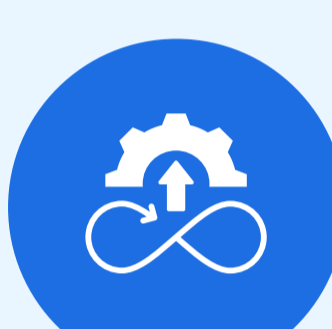
These challenges increased operational risk and delayed critical insights, necessitating an AI-driven, scalable solution.

THE SOLUTION

Deploying AI-Powered Data and Fraud Analytics

Apexon implemented its Customer AIQ solution, leveraging the IC4 data accelerator on a hybrid Azure-Databricks stack. The solution streamlined data ingestion, enabled real-time fraud detection, and provided a governed metadata interface, transforming the client's fraud prevention and analytics capabilities.

Key Solution Components:

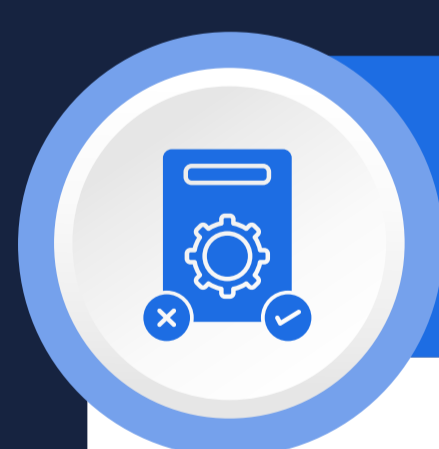
 <h4>SCALABLE CLOUD-NATIVE ARCHITECTURE</h4> <p>Utilized Azure and Databricks' Lakehouse platform for high-volume data ingestion and real-time analytics.</p>	 <h4>AUTOMATED DATA INGESTION</h4> <p>Deployed IC4's microservices and orchestration to process structured and semi-structured data with minimal manual effort.</p>
 <h4>AI-POWERED FRAUD DETECTION</h4> <p>Integrated anomaly detection models and behavioral analytics for proactive threat identification.</p>	 <h4>METADATA MANAGEMENT PORTAL</h4> <p>Delivered a UI-based system for schema, lineage, and audit management, ensuring transparency.</p>
 <h4>DEVOPS-ENABLED PIPELINE</h4> <p>Implemented CI/CD and source code management for rapid, error-free updates.</p>	

Apexon's solution was deployed with rigorous testing and compliance validation to ensure seamless integration and alignment with the client's operational goals.

KEY RESULTS

Delivering Measurable Fraud Prevention and Efficiency

Apexon's Customer AIQ solution transformed the client's data and fraud management, delivering significant efficiency, scalability, and compliance outcomes.



FRAUD MINIMIZATION AND COMPLIANCE

- ✓ **Real-Time Detection:** Enabled proactive fraud identification with AI-powered analytics, reducing false positives.
- ✓ **Reduced Investigation Time:** Streamlined workflows allowed analysts to focus on high-value cases.
- ✓ **Enhanced Compliance:** Embedded governance controls ensured full adherence to financial regulations.



FASTER TIME TO MARKET

- ✓ **Agile Fraud Models:** Enabled rapid onboarding of new data sources and rule sets.
- ✓ **Sub-Second Latency:** Delivered critical fraud alerts with real-time insights.
- ✓ **60–80% Faster Deployment:** Cut project delivery cycles from weeks to days with automated pipelines.



SCALABILITY AND PERFORMANCE

- ✓ **High-Volume Processing:** Handled 3,000+ ingestion jobs and 2TB of data daily.
- ✓ **Scalable Architecture:** Supported growing data volumes without performance degradation.
- ✓ **Improved Collaboration:** Centralized metadata and version control enhanced team efficiency.



OPERATIONAL EFFICIENCY AND COST REDUCTION

- ✓ **Reduced Overhead:** Automated ingestion and reporting cut manual effort by 60–80%.
- ✓ **Cost Savings:** Streamlined processes optimized resource allocation.



OVERALL BUSINESS IMPACT

- ✓ **Operational Resilience:** Enhanced fraud prevention and data insights strengthened risk management.
- ✓ **Regulatory Compliance:** Adhered to strict regulations with secure, auditable processes.
- ✓ **Client Satisfaction:** The client praised Apexon's solution for its scalability and impact on fraud prevention.

By addressing critical inefficiencies, Apexon empowered the client to stay ahead of financial threats and maintain its leadership in digital banking.

CONCLUSION

Apexon's partnership with a digital-first financial institution transformed its fraud detection and data management through the Customer AIQ solution. By enabling real-time analytics, reducing manual effort by **60–80%**, and processing **2TB** of data daily, Apexon delivered a scalable, compliant platform. This transformation not only met immediate needs but also positioned the client for sustained success in a high-stakes digital environment.