



SUCCESS STORY FINANCIAL SERVICES

MODERN DATA ANALYTICS PLATFORM SUPPORTS CREDIT LOSS & CUSTOMER ACQUISITION USE CASES

Apexon delivers faster cycle time and increased customer satisfaction with data strategy, data migration and data engineering services

This tech-forward financial services company provides simple, personalized payment, lending, savings, and loyalty solutions to consumers and businesses. These include market-leading private label, co-branded, general purpose and business credit card programs, as well as digital payments.

Apexon began its strategic partnership with the company in 2019. At the time, the company was having difficulty delivering the necessary speed and agility to process and deliver high volumes of data on time for analytical models via its on-prem applications. Apexon's scope included data strategy, data migration, and data engineering services to help create a simple, efficient platform that would reduce costs and increase revenues for the company. Apexon analyzed multiple use cases and designed and implemented a cloud-based analytical platform to meet the organization's needs.



Tech-forward payment and lending solutions



8,000+ global associates



\$4.295B+ annual revenues in FY 2023



Owns and operates loyalty/reward programs for global brands

THE CUSTOMER JOURNEY

2019

2020

2021

2022-23

2024

- CCPA
- Fraudnet Contract
- Self-Service Data Mart Discovery Contract
- Conversant

- Data Azure Lab
- Cloudera
- Data Strategy

- CCPA
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- Hub Support
- Vulcan Reporting & Downstream DDB
- Capability Management

- Gen AI COE
- Vulcan Reporting & Downstream DDB
- Capability Management

KEY OUTCOMES WITH APEXON



83% reduction in manual effort for special letters creation, translating to a substantial **93%** cost savings for BFH while improving the error rate of response letters from **22%** (manual) to **10%** (GenAI)



2x faster ML model development by ingesting **60%** of data on Azure with historical context and a semantic layer



Improved decision-making and CX by empowering **200+** brand partners with a self-service analytical platform



Achieved **91%** accuracy in summaries, minimizing non-factual information when processing large call volumes (**15000** calls)



75% reduction in onboarding time for new data sources



89% Accuracy in producing high-fidelity voice transcription for large volume (**15000** Calls)

THE CHALLENGE

FASTER DATA ANALYTICS TO SUPPORT CREDIT LOSS & CUSTOMER ACQUISITION

The company had been an early innovator and leader in providing loyalty and marketing services support. They have since repositioned and made acquisitions to add payment and lending solutions to brand marketing and SMB segments. This meant migrating data from legacy platforms to modern data platforms and enabling analytics for quicker insights and improved customer acquisition experience.

The end goal was to minimize fraud and provide trusted data and faster insights. But they faced several obstacles, including:



Linear and Siloed Development Efforts

Which hampered the build process and created the need for rework in the later stages



Disparate Tools and Methodologies

Used across the organization, creating huge inefficiencies and redundancies



Large Volumes of Reports

Requiring time-intensive efforts and the need to rationalize to provide qualitative and actionable insights



Lack of a Source-Code Management System

Resulting in multiple code bases, further slowing development and testing



Operational Inefficiencies

BFH relied on manual effort for tasks like summarizing complaints, analyzing IVR dropouts, and crafting tailored responses to customer disputes. This was time-consuming, error-prone, and limited scalability.

- Increased call volumes leading to manual effort and resource allocation challenges.
- Difficulty in tracking and analyzing customer concerns, leading to suboptimal service offerings.
- High labor and resource costs associated with manual review and response letter generation for transaction disputes.
- Inefficient process for obtaining ad-hoc insights due to lack of conversational interfaces.



Data Overload and Complexity

Processing large volumes of call transcripts and unstructured data was challenging, hindering valuable insights and decision-making.

- Large volumes of call transcripts and diverse audio formats requiring efficient summarization and transcription.
- Complex transaction dispute data requiring precise and context-sensitive response letters.
- Small business index metrics data tracking complexity leading to difficulties in obtaining insights.

THE SOLUTION

MODERN SELF-SERVICE DATA ANALYTICS PLATFORM DELIVERING FASTER INSIGHTS

Apexon's engagement focused on two primary initiatives:

- ✓ Enabling a Quick Pilot
- 🔗 Setting Up an Enterprise Data Platform

The goal was to transform the data analytics landscape to support the business transition organization-wide. At the core of the solution was a faster data curation platform that could deliver high quality data on demand and predict fraud while also providing a seamless customer experience through a self-service portal.

Over 14 months, Apexon defined and executed on multiple requirements and use cases including pipeline automations, scalable architecture to transform data based on AI/ML, and a building a semantic layer for ML models.

Some of the other key deliverables included:



Enterprise grade compliant data platform delivering trusted data



Onsite-offshore development center - (USA-India/Hyderabad)



Leverage of Apexon's iC4 proprietary accelerator for faster data curation



60% of data ingested (including ~160 3rd party Brand Partner files) with history onto Azure and a semantic layer for building ML models



Self-service "one-stop-shop" analytical platform for over 200 brand partners to access critical data about their sales and credit card application



A Serverless Architecture - Compute and Storage on Demand, Data availability at scale with core capabilities

POWERING INNOVATION WITH A GENAI CENTER OF EXCELLENCE (GENAI COE)

Apexon partnered with this Financial firm to establish a Generative AI Center of Excellence (GenAI COE). This in-house capability empowers the customer to:

- Leverage cutting-edge Large Language Models (LLMs) powered by Azure OpenAI.
- Develop and deploy custom GenAI solutions tailored to their specific needs.
- Automate repetitive tasks and streamline operational workflows.
- Unlock valuable insights from diverse data sources.

Apexon implemented a suite of GenAI solutions for this financial firm, including:

Customized Dispute Response Letters

Apexon implemented a system that **crafts dynamic, precise, and context-sensitive letters** in response to customer transaction disputes, utilizing the power of Azure OpenAI.

Voice Transcription

Utilizing Azure OpenAI Whisper, Apexon enabled the client to produce **high-fidelity voice transcriptions** from a wide range of file formats and languages.

Call Summarization

Leveraging Azure OpenAI, Apexon implemented a solution capable of **accurately summarizing high volumes of call transcripts** on a daily basis. This solution is **optimized for both cost efficiency and processing times**.

Conversational Assistant

Apexon **developed a conversational AI assistant powered by Azure OpenAI LLM**. This chatbot allows users to ask questions in plain language and receive conversational responses. The solution leverages Azure Web Apps and OpenAI for **scalability and cost-effectiveness**.

These solutions equipped the customer with the capability to unlock valuable insights, automate workflows, and enhance customer experience, driving significant business value.

KEY AREAS OF PROJECT SCOPE INCLUDE



DATA STRATEGY

Apexon was involved in developing a secure, cloud-based modern data platform for the company including blueprinting, implementation, and agile design and delivery to minimize risk. Apexon also worked with the company to quickly launch new initiatives and validate them through a Minimum Viable Product (MVP) approach in advance of production implementation.



CLOUD MIGRATION

Apexon proposed the migration of the company's data assets to Azure cloud from its on-prem databases and Hadoop big-data platform. This included project definition, tool selection, execution, mitigation strategy, execution, testing, and verification. This effort enabled the company to lower infrastructure management costs while increasing database performance and resilience.



DATA ENGINEERING

Apexon re-imagined the underlying data architecture of the company's platform. This included a scalable, cloud-based data repository and data analytics solution built on Azure and Databricks. Apexon also designed and developed a data ingestion framework with reusable micro-services and pre-defined ingestion pipelines. In addition, Apexon designed and developed a UI-based portal for configuring and managing metadata of source, target and operational data along with the ingestion pipeline setup, thus reducing the ingestion development timeline and eliminating expensive manual efforts and errors.



GEN AI IMPLEMENTED VARIOUS LLM-POWERED SOLUTIONS

Apexon partnered with this financial company to establish a Generative AI Center of Excellence (GenAI COE) to empower them with cutting-edge AI solutions. This COE allowed BFH to:

- **Complaints Summary** - Apexon's LLMs automatically analyze complaints, identifying key themes, sentiment, and regulatory concerns. This data empowers BFH to prioritize issues, target improvements, and ensure compliance.
- **IVR Dropout Analysis** - By analyzing transferred call transcripts using LLMs, BFH pinpoints reasons for IVR dropouts, enabling them to refine the system for better containment and customer experience.
- **Call Transcript Summarization (POC)** - This Proof of Concept demonstrates the ability of LLMs to process massive volumes of call transcripts efficiently, potentially saving BFH significant costs compared to manual summarization.
- **Voice Transcription (POC)** - Leveraging Azure OpenAI Whisper API, LLMs transcribe call recordings with high fidelity, enhancing accessibility and searchability for analysis and knowledge sharing.
- **Special Letters (POC)** - LLMs dynamically generate personalized responses for unique customer disputes, aiming to improve communication, reduce response times, and maintain accuracy.

KEY RESULTS



STREAMLINED OPERATIONS & ENHANCED SERVICE LEVELS

- **Reduced onboarding time for new data sources from 14 days to 3 days through LLM-powered automation**, enabling BFH to access and analyze data faster for informed decision-making.
- **Empowered 200+ brand partners with a self-service analytical platform**, streamlining access to critical sales and credit card application data, improving decision-making speed and customer experience.
- **Developed templates and playbooks to ensure consistency across teams and interactions**, leading to reduced training time, improved task accuracy, and enhanced service quality.
- **Automated complaint analysis reduced program implementation time** and fostered rapid user adoption.
 - Complaint handling time reduced by 80%.
 - Achieved 91% accuracy in sentiment analysis, ensuring compliance and addressing customer concerns effectively.



INCREASED CUSTOMER SATISFACTION

- **Faster and more personalized dispute resolution using LLMs** resulted in:
 - 70% reduction in dispute handling time.
 - 12x faster Dispute Response Letters generation with GenAI, improving customer satisfaction through faster responses.
- **Enhanced customer experience with:**
 - 99% data accuracy, ensuring reliable insights for improved service.
- **Enterprise-grade, compliant data platform with automated data management processes delivers trusted data and faster insights to users**, enhancing overall customer experience.



IMPROVED EFFICIENCY & SCALABILITY

- **Smarter decision-making through LLM solutions led to:**
 - 50% reduction in operational costs.
 - 2x faster ML model development achieved by ingesting 60% of data, including ~160 3rd party Brand Partner files, onto Azure with historical context and a semantic layer accelerating time-to-insight.
- **Scalable architecture** supported exponential growth, handling 2x data volume with ease.
- **Achieved 92% cost reduction** in letter generation, from \$4.40 to ~\$0.30 per letter, saving ~\$92k annually.



Apexon is a pure-play digital engineering services firm focused on helping companies accelerate their digital initiatives from strategy and planning through execution. We leverage deep technical expertise, Agile methodologies and data-driven intelligence to modernize systems of engagement and simplify human/tech interaction.

We deliver custom solutions that meet customers' technology needs wherever they are in their digital lifecycle. Backed by Goldman Sachs and Everstone Capital, Apexon works with both large enterprises and emerging innovators — putting digital to work to enable new products and business models, engage with customers in new ways, and create sustainable competitive differentiation.

 info@apexon.com

 www.apexon.com

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