



SUCCESS STORY FINANCIAL SERVICES

APEXON STREAMLINES DECISION-MAKING ON CLAIM APPROVALS/DENIALS WITH ADVANCED ANALYTICS PLATFORM

Apexon delivers efficient data lake platform with machine learning to speed decision-making on claim denials and approvals

This company is a leading provider of business process management solutions with particular expertise in healthcare technology services.

They provide a flexible, cloud-based advanced analytics platform for healthcare benefits administration and claims processing. The company partners with healthcare providers and insurers to streamline claim approvals and denials.



Founded in 2001; based in India



Leader in business process management services



Revenue of over 50B INR (approx \$670M)



Apexon began its strategic partnership with the company in 2021. It included enterprise data lake development, data engineering, and quality engineering services to help create a simple platform to reduce customer onboarding time. Apexon is helping the company scale its business by providing an efficient platform to process daily incoming claims to support decision-making for approval and denial of claims, thus preventing service disruption and making health services more efficient.

THE CUSTOMER JOURNEY

2021

- Cloud Engineering
- Data Lake POC

2022

- Development Partner
- Enterprise Data Lake POC
- Provider Data Lake
- Data Engineering Partner

THE RESULTS

KEY OUTCOMES



**INCREASED FLEXIBILITY
& EASE OF USE FOR
HIGHER SERVICE LEVELS**



**HIGHER CUSTOMER
SATISFACTION**



**INCREASED AUTOMATION
FOR FASTER CYCLE TIME,
REDUCED COSTS**

OUR METHODOLOGY

THE DIGITAL LIFECYCLE

Apexon works with companies across the digital lifecycle.



GO DIGITAL
**LAUNCH &
EXPERIMENT**



BE DIGITAL
**AUTOMATE &
ACCELERATE**



EVOLVE DIGITAL
**BE INTELLIGENT
& AUTONOMOUS**

Enable digital adoption in a quick, and agile manner



Build digital infrastructure and foundation for enterprises to scale



Leverage data engineering to make strategic decisions and get digital right every time

Apexon designed and built a data lake that can automatically ingest healthcare provider and payer (insurance, clearing houses, third-party agents) claim data from multiple external source systems, transform the data and load it into the data lake.

Apexon re-imagined the underlying data architecture of the claim processing platform. This included a scalable, cloud-based file system and data analytics solution built on Azure data lake and other storage services.

THE CHALLENGE

A MORE EFFICIENT CLAIM PROCESSING MODEL

Healthcare providers generate patient UB/EOB data consisting of hospital claims, remittance advice, EDI files (837, 835 format), clearing house data, payer contract documents, and more. These claims are provided to the payers (insurance/clearing houses/third party agents) that can send the claim back, deny payments, or approve partial claims of the provider.

This process required provider analytics team members to review the UB/EOB claim data manually and come up with an analytical model(s) to calculate propensity score to find if the submitted claims were going to be denied, partially approved, or sent back with queries.

The company want to provide its clients with a more efficient claim processing model. The idea was to have a centralized platform – a provider data lake – that could support claim processing for multiple clients in a multi-tenant environment. This solution had the potential to simplify healthcare benefit design, management and execution, and make the company a one-stop enterprise technology partner for the healthcare industry.

To achieve this, the company was looking for a strategic data services partner to work with them to define the technology architecture for their data lake platform on Azure Cloud and develop an approval /denial management analytic claim processing platform.

The company needed a partner with expertise in both cloud and data engineering to collaborate with and help deliver on its vision. Specific goals included:



Upgrading its IT infrastructure to support new market demands across a range of customers (both business and consumer)



Building a modern digital platform while easing the transition from its existing legacy-based systems



Enabling re-usability of defined frameworks incorporated into the denial analytics platform with core foundational capabilities including:



Streamlining implementation and use with a flexible self-service platform for its customers that provided transparency for both clients and employees



Providing consumption details with elaborate and fully accurate reports and visualization tools to support the business

- Parameterized type 2 processing with optimum resource utilization
- Complex code generation for curation layers and across data stores
- A model to store metadata, data quality and operational metadata
- Comprehensive platform-agnostic engine that helped validates data at rest and data in motion for completeness, validity, consistency, timeliness and accuracy



Addressing new customer requirements and higher service levels



Making the company more agile and efficient



Enabling customers to optimize the performance of their claim processing operation plans and help better decision making and manage costs



Delivering feature engineering for a sustainable and self-learning analytical platform to learn and train machine learning models for efficient claim processing operations

THE SOLUTION

TO BUILD, SCALE-UP, & CONTINUOUSLY INNOVATE & TRANSFORM THE PLATFORM & APPLICATIONS

Apexon designed and built a data lake with the ability to automatically ingest healthcare provider and payer (insurance, clearing houses, third-party agents) claim data from multiple external source systems, transform the data and load it into the data lake. There it could be consumed efficiently by power BI reports/carriers and data scientists to generate propensity scores for claim approval/denial.

This provider data lake in the cloud enables faster client onboarding and simplified configurations for business operations staff. Additionally, the Apexon team is helping the company automate many of its manual legacy business processes related to data strategy and governance.

Apexon has also recommended the company integrate a cloud-based data warehouse and data analytics solution built on Azure to deal with its growing data management needs.

Apexon is working closely with company's product and engineering teams to build, scale-up, and continuously innovate and transform the platform and applications. This includes:



Adding a variety of services including digital data strategy for blueprinting and MVP front-end and backend development for enterprise platform



Data and cloud engineering services for core infrastructure setup

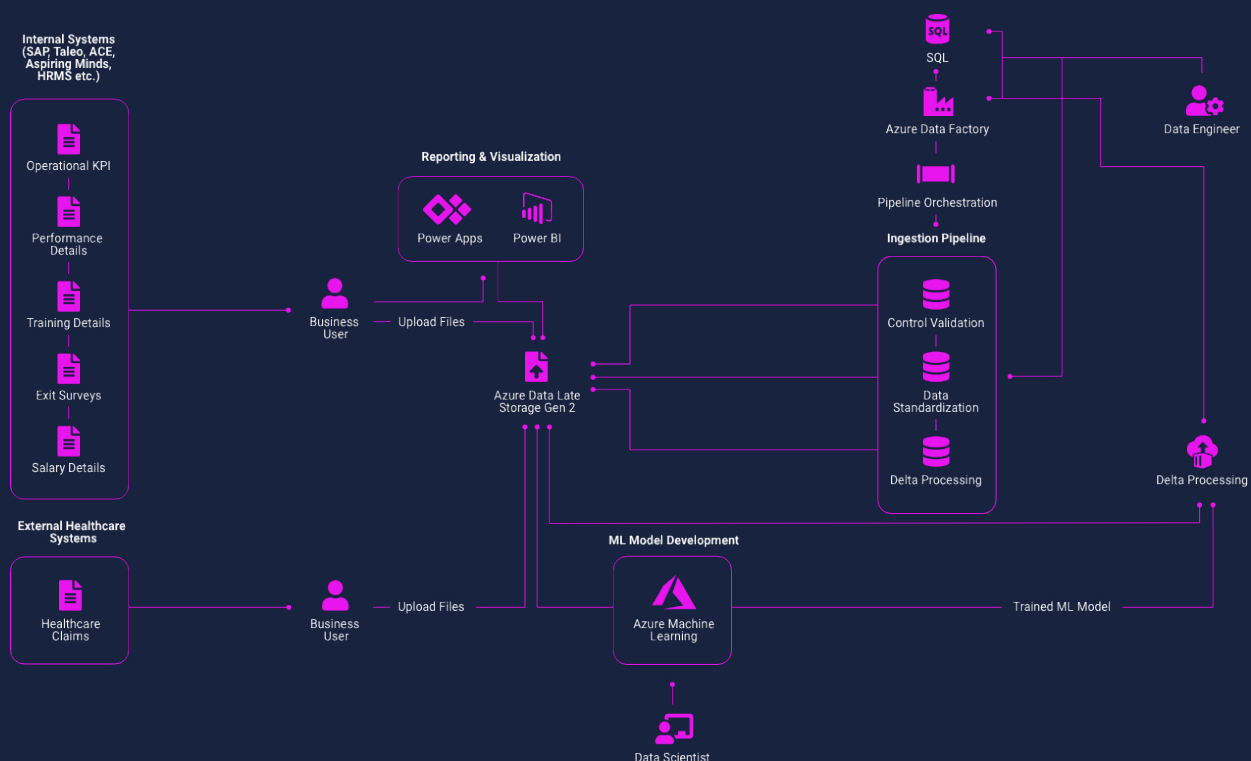


Mobile application development



Test automation for quality engineering

DENIAL ANALYTICS DATA FLOW:



KEY AREAS OF PROJECT SCOPE INCLUDE:



CLOUD MIGRATION

Apexon is ingesting healthcare claim data like hospital claims, remittance advice, EDI file (837, 835 format), clearing house data, payer contract documents etc. to Azure data lake storage using migration tools and data factory methodology for automation. Responsibilities include project definition, tool selection, execution, mitigation strategy, execution, testing and verification. This project is reducing infrastructure management costs while increasing data storage performance and resilience.



DATA ENGINEERING

Apexon re-imagined the underlying data architecture of the claim processing platform. This included a scalable, cloud-based file system and data analytics solution built on Azure data lake and other storage services. Apexon also designed revised workflows to assess the efficacy of the solution. In addition, Apexon is helping in the automation of machine learning model execution using real-time rest endpoint generated propensity scores to facilitate decision making on claims approvals, denials and partial approvals, thus eliminating expensive manual efforts and errors.

KEY RESULTS:



Higher Customer Satisfaction

New claim adjudication engine accelerates claim processing by integrating a solution that was easy to configure, manage, and onboard



Higher Service Levels

Via real-time and batch claim data ingestion into cloud data lake and data processing using automated machine learning



Visualization & Analysis

Efficient provisioning of reporting services and analysis data for consumption by business



Faster Cycle Time, Reduced Costs

Increased automation, agility and scale; easy access to performance data, reduced regression times – all made it possible for client to deliver on weekly release cycles and deliver on-demand releases when needed



Increased Flexibility & Ease of Use

To reduce claim processing time on new provider data lake platform, further enhancing services for other data strategy use cases



Scalable Architecture

To support exponential growth



info@apexon.com



www.apexon.com

FEELING SOCIAL?

