



SUCCESS STORY HEALTHCARE

INSURANCE CARRIER OPERATIONALIZES NEW BUSINESS VIA CLOUD- BASED PLATFORM

Apexon builds information-sharing tool to enhance relationships with brokers and customers



This large, privately-held insurance brokerage firm provides insurance, risk management, employee benefits and retirement services. The company has expertise in insurance technology services and leverages a flexible, cloud-based, advanced analytics platform to serve to businesses around the globe. Its risk management services include analytics, strategic risk consulting, supply chain risk, and transaction advisory practice.

Apexon began its strategic partnership with the company in 2018. The client's goal was to become a "data-powered" company to help adapt to its changing market space and monetize various data assets across its environment. The relationship included enterprise data lake development, data engineering, and quality engineering services with the end goal of establishing a scalable environment to support multiple products/applications, carrier onboarding, and BI self-service for internal reporting.



**\$39.5B in annual
insurance premiums**



**65,000 clients in
over 125 countries**



8,500 associates



**One of Fast Company's
'World's Most Innovative
Companies'**

THE CUSTOMER JOURNEY

2018

- Cloud Engineering
- Data Lake POC

2019

- Development Partner
- Provider Data Lake
- Data Engineering Partner

2020

- Strategic Tech Partnership for development
- Became sole Quality Engineering Partner

2021

- Continuous performance monitoring
- Product and user experience enhancements

THE RESULTS

KEY OUTCOMES



**HIGHER SERVICE
LEVELS**



**INCREASED FLEXIBILITY
& EASE OF USE**



**HIGHER CUSTOMER
SATISFACTION**



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 built an enterprise data lake that can automatically ingest carrier provider/end user (insurance, clearing houses, third-party agents) claim data from multiple external source systems.

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

ENABLING A NEW BUSINESS MODEL

The company wanted to fundamentally change its business model. This required a new cloud-based enterprise platform solution that would help the company and its partners simplify the delivery of insurance, risk management, employee benefits, and retirement services in an infinitely scalable environment.

The company needed a highly qualified cloud and data engineering partner to collaborate with that could help deliver on its vision. Its specific goals included:



Digital Transformation

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



IT Infrastructure Upgrade

Supporting new market demands across a range of customers (both B2B and B2C)



Value Generation

Enabling customers to optimize the performance of their insurance processing operation plans and support better cost management



Visualization & Reporting

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



Ease of Implementation & Use

Building a flexible, self-service platform for its customers adding transparency for both clients and their employees



Streamlined Operations

Making the company more agile and efficient

THE SOLUTION

ELIMINATE CHALLENGES ASSOCIATED WITH LEGACY CLAIM PROCESSING SYSTEMS

The Apexon team has been working with the company since 2018 to eliminate challenges associated with legacy claim processing systems and antiquated business models.

As the company's dedicated cloud/data engineering partner, Apexon built a Spark-based processing framework for this organization that is based on Apexon's IC4 methodology. This framework helps to automatically ingest carrier provider/end user (insurance, third-party agents) data from multiple external source systems. The solution transforms the data and loads into SQL server on cloud, for consumption by power BI reporting.

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

Additionally, the Apexon team is helping the company automate many of its manual legacy business processes related to data strategy and governance.

The enterprise data lake enables the re-use of defined frameworks incorporated into the approval /denial analytics platform to deliver core foundational capabilities that include:



A platform-agnostic engine that validates data at rest and data in motion for completeness, validity, consistency, timeliness, and accuracy



Complex code generation for curation layers and across the data store



A comprehensive model to store metadata, data quality, and operational metadata



Parameterized Type 2 processing with optimum resource utilization

Apexon 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.

OUR APPROACH



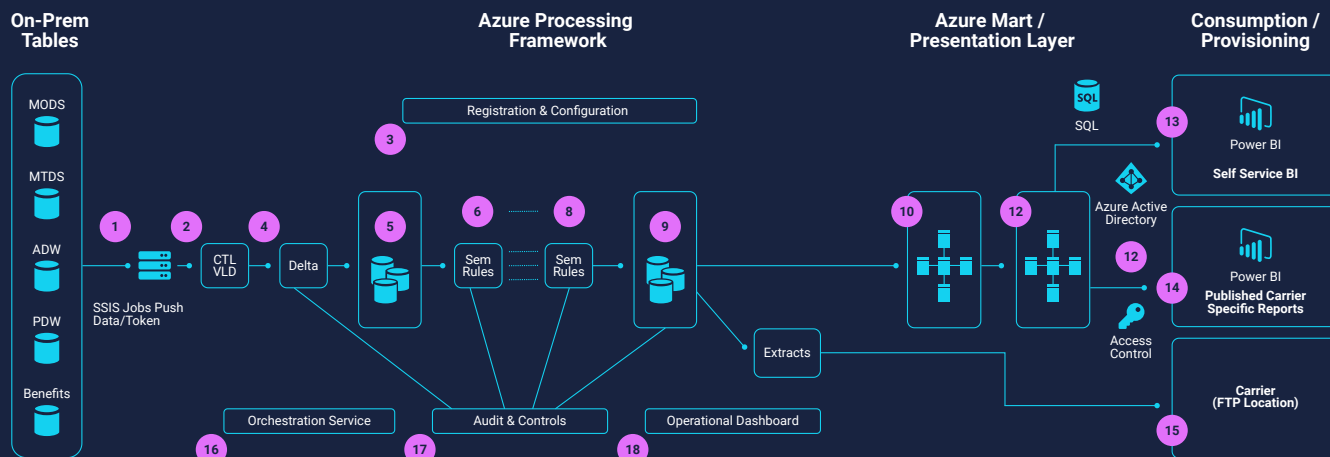
Modern architecture with predictable batch execution framework driven by Apexon data services and framework on Azure



Monitoring tools, operational dashboard, and security tools provide complete control and visibility in the environment



Scalable environment to support other products/applications, next 20+ carrier onboarding, BI self-service for internal reporting, data scientists, and API framework



1

On-prem jobs push data scheduled jobs

2

Landing Zone

3

Registration and Configuration for all elements **(Service)**

4

Perform Ctl validation for data completeness & Delta to capture changed information **(Service)**

5

Integration Area - data stored by year/monthly/day in Azure Blob Gen 2 storage **(Service)**

6

Semantic - Join with other tables as per business rules

7

Semantic - Keys gen and Mgmt., assignment, CDC-type-2 and load process **(Service)**

8

Semantic - Apply Business Rules, Classification Conversions Rules

9

History retention for Data Discovery/provision as extracts/applications. Azure blob storage gen2

10

Data Mart at granular level

11

Presentation Layer - Business view for P&C

12

Access Control through Azure AD and RBAC

13

Self-Service BI on Data Mart and Source data at Step-5

14

BI reports published to Carriers

15

Scheduled extracts to Carrier at designated locations **(Service)**

16

Orchestration framework for job execution & Mgmt. **(Service)**

17

Audit and Logging framework for logging errors, execution information **(Service)**

18

Monitor, schedule, re-run, debug jobs **(Service)**

KEY AREAS OF PROJECT SCOPE INCLUDE:



CLOUD MIGRATION

Apexon is ingesting insurance data to Azure SQL server storage using Spark processed data based on IC4 methodology. Responsibilities related to this recommendation included project definition, tool selection, execution, transformation, mitigation strategy, execution, testing, and verification. This project will enable the company to lower infrastructure management costs while increasing data storage performance and resilience.



DATA ENGINEERING

Apexon designed the underlying data architecture for the market analytics platform. This included a scalable, HDinsight-based file system and data analytics solution built on Spark.

KEY RESULTS:



Higher Customer Satisfaction

New adjudication engine accelerates insurance 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 make it possible for client to achieve monthly and weekly releases, working to achieve on-demand releases



Increased Flexibility & Ease of Use

Target to reduce insurance processing time on new SQL server cloud platform



Scalable Architecture

To support exponential growth



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FEELING SOCIAL?

