### CapTech.

# Harnessing the Power of Data and Analytics Through the Cloud

## aws

#### **SUMMARY**

Advanced Analytics, paired with cloud migration, led to faster and more accurate anomaly detection for a top 10 U.S. healthcare company.

When this company faced challenges in its claims processing and fraud waste, and abuse detection process, it partnered with CapTech to analyze the issue and engineer a cloud-based solution, resulting in increased speed and flexibility in delivering new advanced analytic models to the business.

#### **CHALLENGE**

Increasingly, insurance companies are leveraging data and analytics models to assist with fraud detection, but the road to adoption has not been without obstacles. Slow processing times and outdated models hinder the ability to fully utilize data.

A top 10 U.S. healthcare company's anomaly detection team leveraged predictive models for a more methodical approach to identifying claims, but the technology behind these models was tied to on-premises systems. This typically resulted in slow processing and a delay in the timelines to deliver new models. The team had previously attempted a move to the cloud, but efforts stalled, leading to a distrust of cloud-based systems. The company engaged CapTech for an in-depth analysis of the issue and recommendation for a solution.





#### CLIENT

Top 10 U.S. Healthcare Company



#### **INDUSTRY**

**Healthcare & Life Sciences** 



#### **SERVICES**

Amazon S3

**AWS Glue** 

Amazon Lambda

**Amazon Athena** 

Amazon SageMaker

#### **APPROACH**



The CapTech team recommended a cloud-based system to improve efficiency in the delivery and execution of advanced analytic solutions. This recommendation was met with some hesitancy from the client's leadership team due to the previously attempted cloud migration. To validate the benefits of a cloud-based system, the CapTech team delivered a proof-of-concept, which demonstrated a scalable, integrated environment with centralized data access. This built confidence around the move to the cloud and the value it would bring.

Once the client agreed to move forward with the cloudbased approach, the CapTech team designed and implemented a single, integrated platform through AWS with an end-to-end unified integration strategy, utilizing S3, Glue, Athena, SageMaker and Lambda. The client did not have an existing cloud infrastructure, which necessitated building a complete data pipeline and cloud-native architecture. Through the cloud platform, the CapTech team was also able to create architecture that allows for containerized deployment of advanced analytics solutions, leading to increased access to key data.

#### **RESULTS**

The new cloud-based platform resulted in significantly faster, more efficient, and more reliable model delivery timelines, leading to a faster and more accurate anomaly detection process, including:



60% Decrease in model delivery timelines



16X More reliable model deliveries



**63% Faster load times** 

The success of this project paved the way for the client to leverage the cloud in other areas of its business. CapTech developed a training plan and roadmap that enabled the client's existing IT team to develop the skills necessary to manage and maintain the cloud platform. By the completion of the project, the CapTech team had successfully completed training for a team of the client's employees.

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