

# Achieving flawless data migration and app modernization for cloud

**Client: Global Pharmaceutical** 

#### Highlights

Data and applications made shareable across teams without investments in additional data centers at remote locations



Pay-per-use model of cloud consumption leveraged to deliver significant cost reduction in data management



Client is future-ready with the ability to leverage AI and ML





#### Background

Capturing and storing data is an imperative for the pharma industry. This includes data related to trials, manufacturing, testing, patient records, cost of treatment, human resources, suppliers, marketing, finance, etc. Currently, Phase III clinical trials alone generate an average of 3.6 million data points, or three times the data collected by late-stage trials 10 years ago. Data is the cornerstone of the industry. It ensures the efficacy, quality, and safety of products, supports R&D, drives innovation, and helps meet regulatory requirements. Without access to reliable data, the pharma industry would be severely handicapped.

#### **Pain Point**

A global client from the pharma industry had clinical data of 10 years in an on premise Oracle database and there were multiple data integrations that had to be carried out for different groups within the organization. With rapid evolution in the industry and the needs of the organization changing, the client wanted to have a unified version of truth for RACT (Randomized & Anonymized Clinical Trial) data across organization migrate and its Clinical Analytical Functional Database (CAFDB) to cloud. This is data related to global drug discovery, development, and trials. The goal was to:

- Reduce the cost of maintaining the data
- Apply Artificial Intelligence (AI) and Machine Learning (ML) on top of the database
- Improve the value of the data by making it shareable to an increasingly decentralized workforce
- Enable security across existing applications based on the region, trial, project, and program.

In addition, the client had six applications-CPP, RDI, FLAIR, GP, TCF and UVP with data related to clinical analytics project areas such as resourcing, audits, inspections, vendor management, trial, patient costs, benchmarking, and other operational data. All the legacy applications had to be migrated to cloud along with the data. The current data visualization tool, Spotfire, also had to be replaced by QlikSense for superior data exploration and visualization.

#### **Cloud Transformation**

The cloud platform for the data and applications had been selected as AWS and it is part of the multi-layered cloud system of F1. The data from the sources were moved by the client's F1 team from the pre-landing layer to the unification layer (through Landing Layer) before being handed over to Altimetrik. When analyzing the applications and the current state of unification, the team was able to find the gaps in the unification and had to resort to either a landing/pre-landing for a quick fix or had to iterate those objects to later releases so that the wait for the source and unification teams was reduced.

The Altimetrik team then integrated the data with Qlik Sense, from where the client's team could create visualizations for the senior management. The team also had to undergo the challenge of Oracle and MySql specific functions to be either recreated in a new form or even prebuild them in unification or in refinement layers as well.

All the applications were thus moved to a new cloud source. In parallel, the QlikSense migration was carried out in the AWS environment meeting all the transformation requirements.

### **Why Altimetrik**

Altimetrik has worked with the client on creating its data platforms and has migrated the client's data from on-premises to AWS Cloud. These initiatives have given us a deep understanding of the client's data infrastructure, allowing us to take ownership of projects, deliver the target performance and generate goodwill.

Altimetrik also approached the engagement with an Agile mindset, primarily focused on how the client's engineering ecosystem could successfully transform by adopting continuous learning/continuous improvement models.

As part of the engagement Altimetrik established a governance team and a reporting cadence monitored by a senior team of practitioners.

#### **Effective Execution**

Altimetrik's six-member off shore team delivered the AWS migration and transformation in six months:

Six business critical applications

migrated to cloud in an incremental (Agile) approach

Replaced legacy on-premise data lake (Oracle DB) with a multilayered cloud based architecture (S3 and snowflake)

Improved data quality with validation rules within data pipelines

Standardized the visualization tool with the Qlik Sense (AWS cloud) from Spotfire

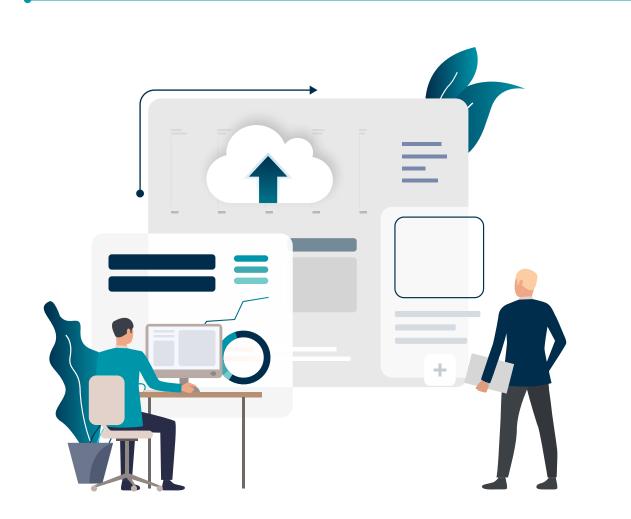
Enhanced data availability for further data analysis and data exploration (BI & AI/ ML systems)

## Results

**Enhanced collaboration:** The client can share data and applications across teams without having to build additional data centers at remote locations.

**Reduced cost:** The pay-per-use model of cloud consumption has significantly reduced data management cost.

**Future-ready:** The client is future-ready, can leverage AI and ML, has improved availability, scalability, and enhanced security.



#### **About Altimetrik**

Altimetrik is a data and digital engineering services company focused on delivering business outcomes with an agile, product-oriented approach. Our digital business methodology provides a blueprint to develop, scale, and launch new products to market faster. Our team of 5,500+ practitioners with software, data, cloud engineering skills help create a culture of innovation and agility that optimizes team performance, modernizes technology, and builds new business models. As a strategic partner and catalyst, Altimetrik quickly delivers results without disruption to the business.

