Tiger Analytics ensured a Fortune 500 Financial Services company to standardize Data Observability and increase Data Quality

Tiger Analytics expertise in Data Science and Data Engineering went a long way toward helping the client build an observability platform. The solution made it easy and secure to onboard applications, metadata, etc. It also reduced MTTD and MTTR, backed by advanced self-service root-cause analysis.

The Background

Our client is a Fortune 500 Financial Services company that collects, aggregates, and models information on over a billion consumers and businesses globally. They rely heavily on Data Analytics workloads for effective decision-making and hence - needed a data platform that could effectively deal with distributed compute and storage services. The client also wanted to use data observability to unearth insights on data downtime, broken pipelines, data anomalies, etc., to speed up innovation and reduce IT costs.

Key Challenges

\ **Central hub limitations**: While serving as the central hub for financial data, their data fabric solution in the cloud faced challenges in supporting Analytics and Credit Rating applications.

\ **Inconsistencies in credit scores**: There were mistakes and anomalies in the credit score, which not only jeopardized the reliability of the scores.

\ **Gaps in monitoring**: The absence of consistent monitoring mechanisms exposed businesses to heightened risks arising from data quality issues, feature drift, and concept drift.
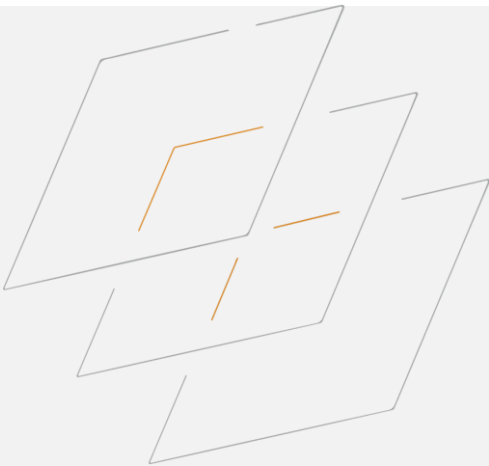
Our Solution

Tiger Analytics addressed the challenges by introducing **Observability as a Service** - an application-independent framework to capture application-specific context using Metadata.

The team then implemented **Easy Application Onboarding** - a push-based approach for events and metrics, through SDK/API integration. Self-service UI interfaces were deployed to further empower analysts and SMEs, enabling them to configure and visualize actionable alerts.

The solution ensured the implementation of **Cost-Efficient Collection, Processing, And Storage Mechanisms**, even as data streams surged to billions of events daily. It was complemented by an interactive multi-dimensional analysis of time-series data and aggressive data lifecycle management.

The team also made sure that a stringent **Validation Process** was instituted to screen and reject any data that did not meet expected quality standards.

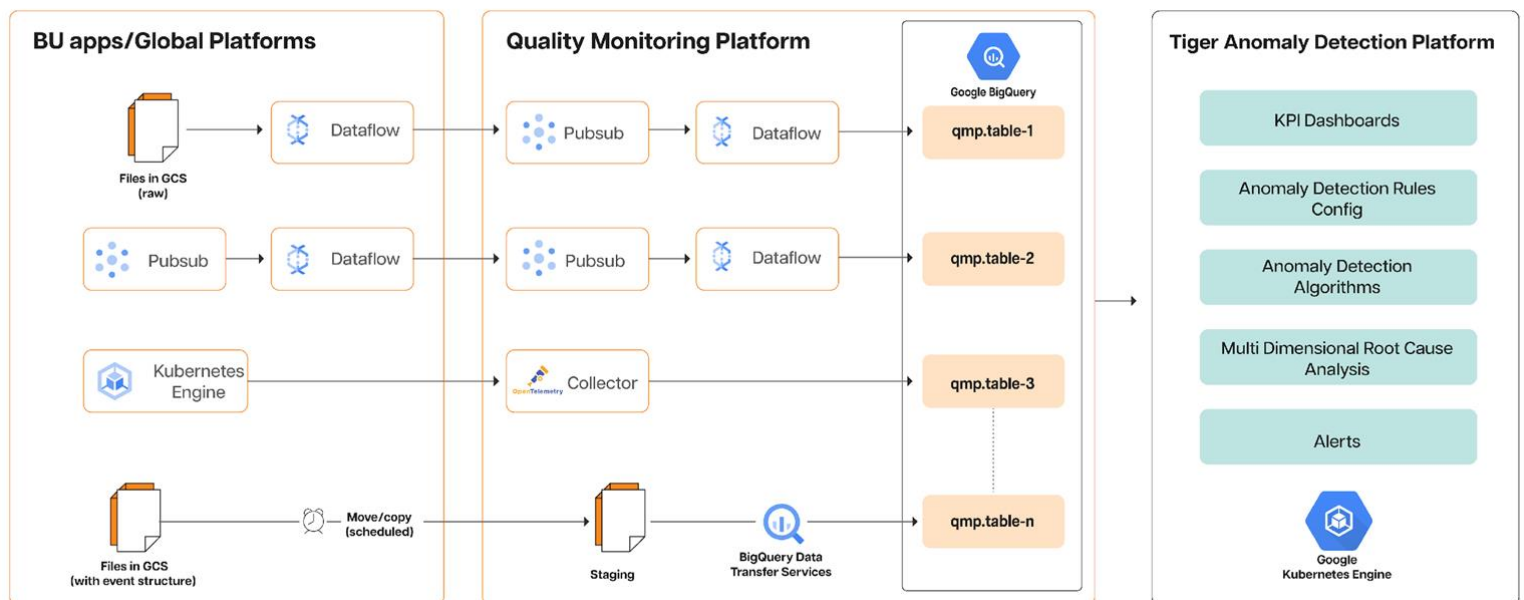# Tech Stack

/GCP

/Big Query

/Kubernetes Engine

/Spark in Dataproc Cluster

/Great Expectations

/Elastic

/Grafana

Solution Architecture

Value Delivered

A data observability platform was standardized with the ability to onboard applications, metadata, and KPIs to be collected, stored, observed, and alerted.

There was a significant improvement in **data quality.**

The Mean Time to Discovery (MTTD) and Mean Time to Repair (MTTR) were reduced by providing a self-service root-cause analysis.

About Us

Tiger Analytics is a global analytics, AI, and ML consulting firm enabling enterprises to leverage data science, AI, and machine learning to drive growth and innovation. Over the years, Tiger Analytics AI and data analytics offerings have assisted customers in amplifying the potential of their data and steering business-outcome-driven engagements. Our team of 3900+ experienced consultants has a proven track record of delivering exceptional results for Fortune 500 clients across industries, including Healthcare, Life Sciences, Retail, CPG, Banking and Finance, Insurance, Manufacturing, Transportation, Media, and Technology. We have offices across the US, India, UK, Canada, Australia, Singapore, Malaysia, and the Philippines.