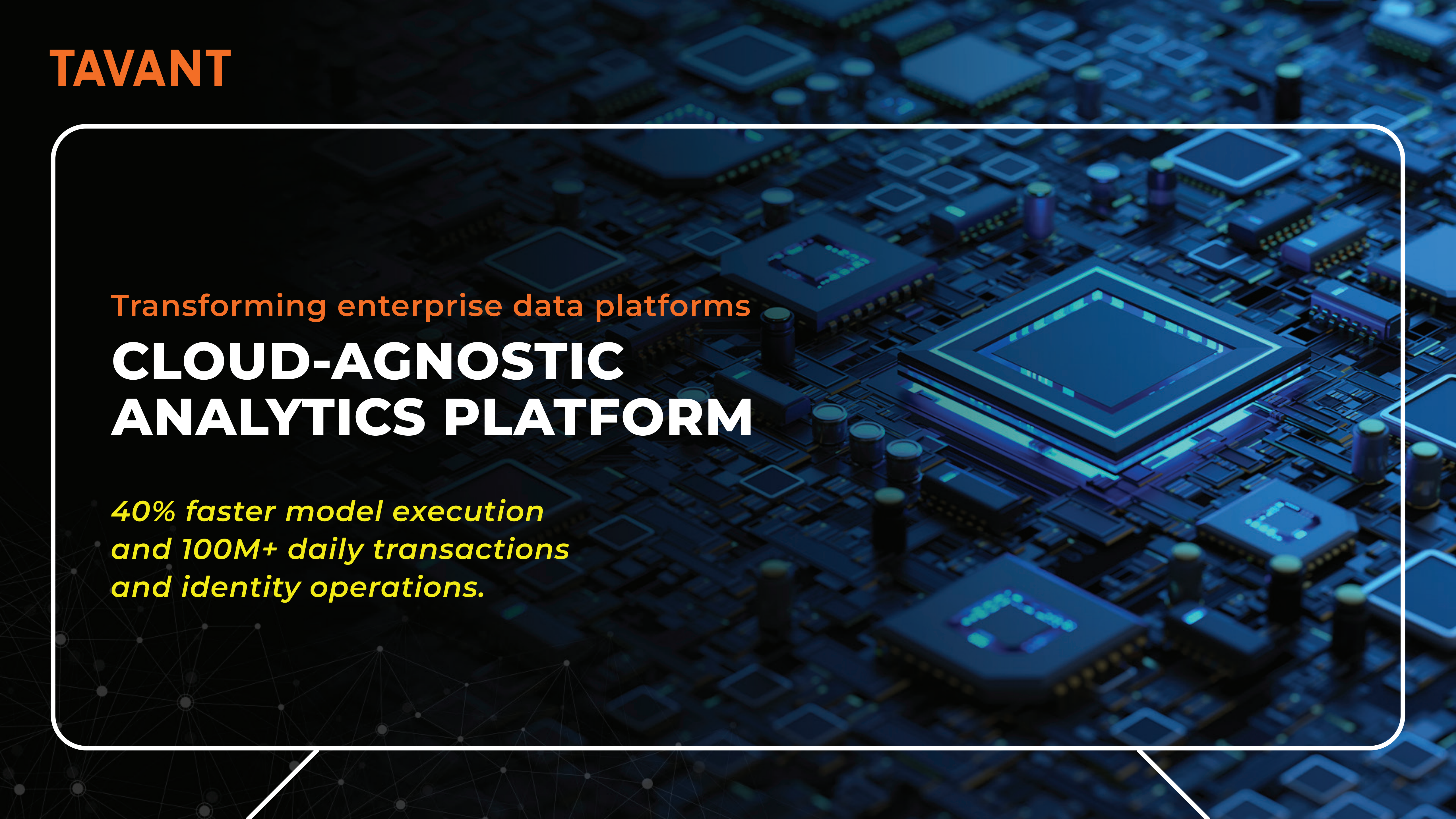




TAVANT

Transforming enterprise data platforms

CLOUD-AGNOSTIC ANALYTICS PLATFORM

*40% faster model execution
and 100M+ daily transactions
and identity operations.*

THE CLIENT AND THE CHALLENGE

A large global information and insights company that operates a cloud-based advanced analytics platform delivering insights to clients worldwide, including its international subsidiaries.

A lack of feature parity between the analytics platform on GCP and on AWS limited user access to core capabilities depending on the cloud environment a client had chosen, impacting productivity and platform flexibility. Separately, the platform lacked the high-performance computing capability that international subsidiaries required to run complex analysis over massive datasets, which constrained the depth and speed of the insights those subsidiaries could produce.

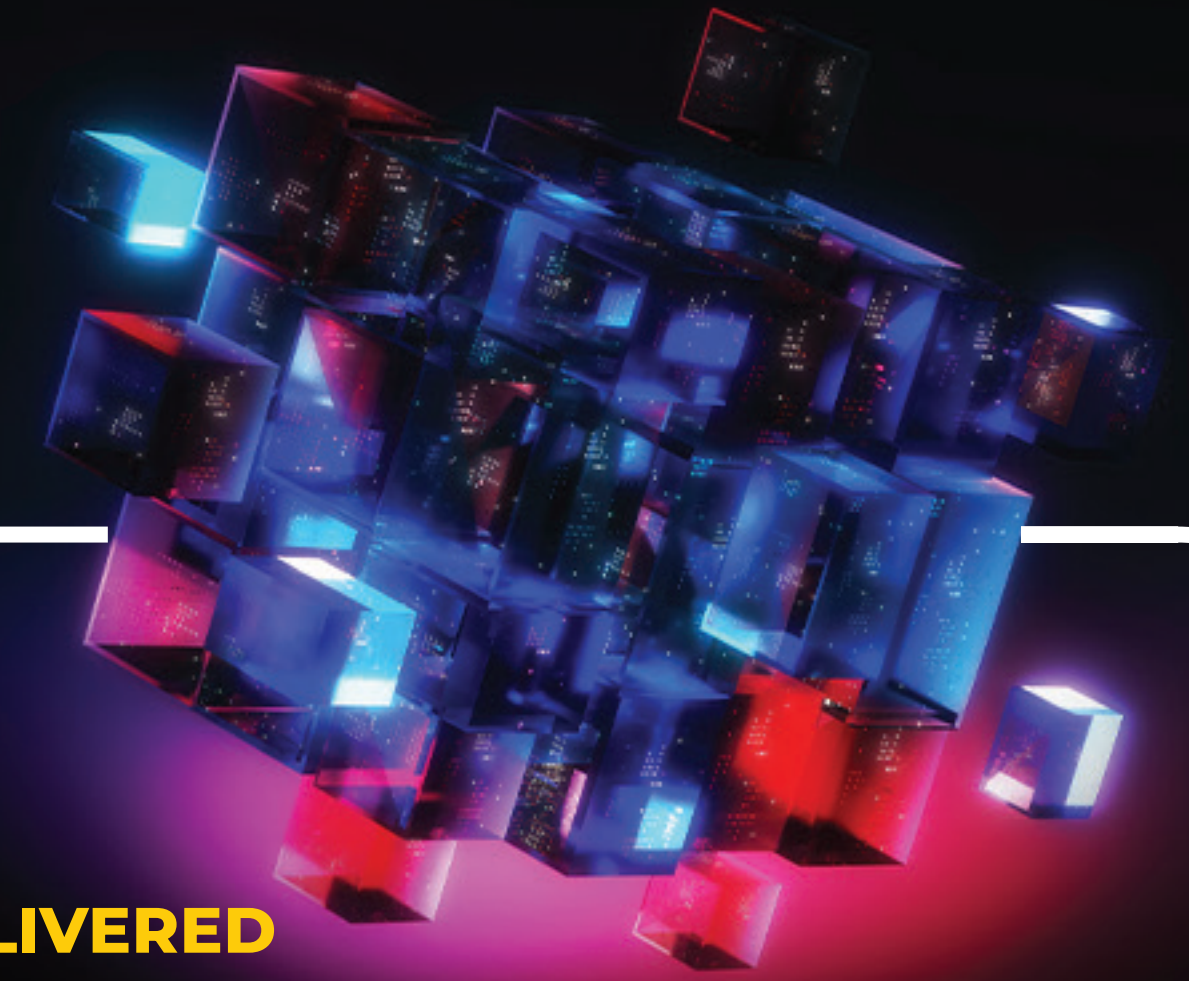
THE SOLUTION

Tavant took a two-pronged approach. To achieve AWS feature parity, Tavant provisioned AWS Analytics accounts and enabled core analytics platform capabilities for a unified experience, enabled the platform's data science workbench for advanced analytics and model development, integrated the platform SDK into AWS for seamless development, and implemented a Model Registry in AWS to streamline model management and deployment.

THE IMPACT

40% faster model execution and 100M+ daily transactions and identity operations. Cloud agnosticism: the analytics platform runs on the client's preferred cloud without compromising features or user experience. Consistent experience across cloud environments with no retraining or adapting to different feature sets.





ARCHITECTURE & PLATFORM

CORE ARCHITECTURE

Auto-scaled HPC analytics clusters provisioned and monitored inside the platform's Google Cloud environment, with Posit Workbench integrated for large-scale analysis and batch jobs submitted from the workbench to the HPC clusters.

CLOUD & INTEGRATION

containerized Model Repository Service exposing store, retrieve, update, and delete operations, with artifacts held in object storage under hierarchical model identifiers and metadata maintained in a relational store.

TECHNOLOGY STACK

CORE STACK

Google Cloud Platform, AWS, Posit Workbench, the platform's data science workbench, the platform SDK, Python, FastAPI, SQLAlchemy, Docker, Jenkins, JFrog Artifactory, Flux GitOps, AWS S3, AWS RDS

SUPPORTING STACK

Cross-cutting tooling and platforms supporting the core stack.

BUSINESS VALUE DELIVERED

OUTCOMES

40% faster model execution and 100M+ daily transactions and identity operations.

OPERATING IMPACT

HPC clusters enable international subsidiaries to run complex, large-scale analysis for deeper insight and faster decision-making.

ACCELERATORS & CAPABILITY

REUSABLE ASSETS

Reusable Model Repository Service with a standardized API for onboarding new models, versioned Docker images and multi-environment GitOps deployment.

CAPABILITY BUILT

A reusable auto-scaled HPC cluster provisioning and observability pattern for regulated analytics workloads.