Vodafone - Data Processing Framework

Vodafone data projects on Google Cloud is supported by NTT Data focusing on improvement of data-processing pipelines for KPIs calculation enabling Machine Learning models in order to improve marketing campaign performances.

The challenge

Vodafone needs to evaluate hundreds of KPIs that feed predictive Machine Learning models. The goal is to rely on the scalability, availability and durability of the new cloud platform to implement a simplified and reliable data model. An important part of the project has been the creation of a processing framework for batch and realtime use cases.

The solution

The solution simplifies the integration of data sources by adding a new connector. The main choice was to standardise the data model and store KPIs, aggregated or not, in BigQuery or in Google Cloud Storage according to the use cases. The processing framework is based on Cloud Dataproc, Dataflow, BigQuery and orchestrated by Cloud Composer.

The results

More than 500 intra-day KPIs have been developed using that framework. So the users/systems work on fresh data, minimizing the risk of not receiving daily batch files and providing up-to-date insights to the Marketing. The developed framework is also speeding up the deployment leveraging on CI/CD and MLOps capabilities.

> We have managed to achieve greater speed in the construction of new KPIs, data sharing and at the same time reduce the complexity of operations and thanks to the adoption of GCP services today we are able to design, develop and provide value-added products easily, cost-effectively and quickly

About Vodafone

As the largest pan-European and African technology communications company, Vodafone transforms the way we live and work through its innovation, tech, connectivity, products and services. Our purpose is to connect for a better future by using technology to improve lives, digitalise critical sectors, enable inclusive and sustainable digital societies

Industry: Telecommunications

Primary project location: Italy

About NTT DATA Italia S.p.A.

With business operations in more than 50 countries and regions, NTT Data provides premier professional services from consulting to system development

Products

Google Cloud Platform