Customer success story

Enabling real-time visualization and forecasting for TfNSW

Scalable, cloud-driven analytics platform on AWS helps predict transportation challenges—and provide insights that maximize business agility.

The challenge

Transport for New South Wales (TfNSW) is responsible for strategy, planning, policy, regulation, funding allocation and other non-service delivery functions for all modes of transport in New South Wales—including metro, rail, bus, ferry, light rail. Transport for New South Wales is continually investing in technology to provide and develop a safe, efficient, integrated transport system that keeps customers moving and connects communities.

TfNSW needed a way to respond rapidly to changing weather conditions, public events, and unpredictable delays as well as to consistently deliver a real-time, personalized, data-driven customer experience. They also needed to analyze in depth operational data to provide executives with actionable insights into network usage and passenger behavior in a quick and cost-effective manner.

Their current on-premises systems lacked the scalability and reliability to form the basis for a reliable data platform. Additionally, TfNSW uses multiple data sources to help drive customer experience and operational efficiency. They had to be able to access, process and analyze these data sets at speed to deliver insights and predictions ahead of time.

The solution

Contino, a Cognizant company, worked with TfNSW to build a highly scalable, fully automated, cloud native and serverless data analytics platform on AWS. The platform was built using cloud-native tooling and DevOps methods to maximize business agility.

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AWS Lambda was used to minimize the operational and management requirements of the platform while reducing cost. AWS S3, Kinesis Firehose and DynamoDB worked together to enable the ingestion and transformation of high-velocity data feeds.

A fully automated cloud native platform

Contino delivered a fully automated cloud native Opal Analytics platform that provides near real-time views and predictions using machine learning on the patronage across the transport network. Web dashboards are used at the front-end to provide customizable and automatable reporting capabilities to enable end-users to segment, analyze and visualize the data across the network to gain fresh insights.

TfSNW can now predict how variations in weather will impact transport usage and patronage across each mode of transport, and the entire transport network. It also provides visibility of activity across the whole public transport network in near-real-time, enabling TfNSW to meet its challenges on multiple fronts.

100% access for senior leadership from anywhere and on any device

Predict and react quickly to fluctuations in patronage, weather and delays

Reduced cost, increased scalability and agility on a cloud-native platform

End-to-end visibility into the entire enterprise

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