

REDUCING COST AND CARBON FOOTPRINT BY PREDICTING AVOIDABLE TRUCK ROLLS

Using Differentiated Snowflake and Amazon Web Services (AWS) To Predict Avoidable Truck Rolls

THE CHALLENGE

Communications Service Providers (CSPs) that offer triple play services (digital voice, high-speed internet, and TV) field millions of calls a year from their customers due to service issues. If the customer service agent is unable to resolve the problem, they dispatch a technician to the customer's premises, often referred to as a truck roll.

However, some of these truck rolls are wasteful as the issue could have been resolved remotely by an agent or elsewhere in the network. Identifying and avoiding these truck rolls can save CSPs millions of dollars a year.

THE SOLUTION

Using Amazon SageMaker with Snowflake creates a near real-time solution in predicting avoidable truck rolls to enable call center agents to make data-driven decisions based on ML prediction.

Truck rolls cost approximately \$200 per truck roll. Assuming thousands of truck rolls per month, OPEX savings can add up to over \$20 million per year (based on moderate reduction in truck rolls).

In addition, truck rolls comprise a significant proportion of carbon emissions for many telco providers — often over 50% of scope 1 emissions — hence, based on a 10% target reduction in truck rolls, CSPs can reduce 5% of their scope 1 carbon footprint.



DATA SHARING

Snowflake support for Apache Iceberg allows seamless access to Iceberg tables in Amazon S3 from Snowflake and from AWS to Iceberg tables created by Snowflake (private preview).



NO ML KNOWLEDGE REQUIRED

Snowflake native integration with Amazon SageMaker Autopilot enables data engineers to trigger a prediction ML model without ML experience via a simple SQL query.



NEAR REAL-TIME PREDICTIONS

Amazon SageMaker Serverless Inference allows easy deployment and scaling for the prediction ML model to serve applications and consumers.

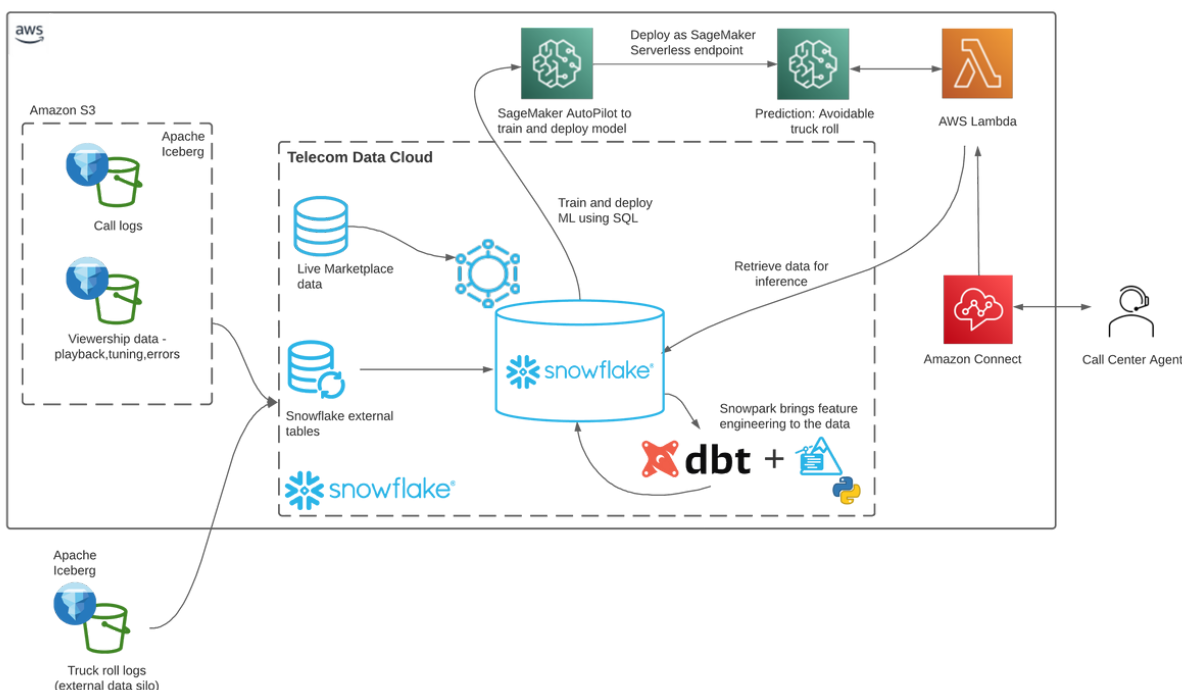


CONTACT CENTER INTEGRATION

Incoming customer calls trigger the SageMaker serverless inference behind the scenes and informs the call center agent about the prediction score for an avoidable truck roll.

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Using differentiated Snowflake and AWS services to predict avoidable truck rolls



- Truck rolls often comprise over 50% of scope 1 emissions for many telecom providers
- With Snowflake’s data pipeline, CSPs can target specific use cases to minimize truck rolls and reduce OPEX
- CSPs can analyze data in real time and provide care agents a binary option to either roll a truck or not
- Automated at the IVR level, the call never gets routed to the agent (another \$8 per call savings)
- This provides positive outcomes for the company, the care agent and the customer

ABOUT SNOWFLAKE

Snowflake enables every organization to mobilize their data with Snowflake’s Data Cloud. Customers use the Data Cloud to unite siloed data, discover and securely share data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single data experience that spans multiple clouds and geographies. Thousands of customers across many industries, including 543 of the 2022 Forbes Global 2000 (G2K) as of October 31, 2022, use Snowflake Data Cloud to power their businesses. Learn more at snowflake.com.

ABOUT AWS

In 2006, Amazon Web Services (AWS) began offering IT infrastructure services to businesses in the form of web services -- now commonly known as cloud computing. One of the key benefits of cloud computing is the opportunity to replace up-front capital infrastructure expenses with low variable costs that scale with your business. With the Cloud, businesses no longer need to plan for and procure servers and other IT infrastructure weeks or months in advance. Instead, they can instantly spin up hundreds or thousands of servers in minutes and deliver results faster.