exposé

Exposé Case Study

Google Universal Analytics Data Migration

RAA – GUA Data Migration to Azure

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CASE STUDY

Building a platform consisting of reusable, pattern-based, and metadata-driven pipelines to effectively copy large volumes of historical data related to insurance marketing using advanced data engineering techniques.

PROBLEM

RAA uses Google Universal Analytics to track various statistics and interactivity within their website and tools to get insights and ultimately make better-informed decisions within the organisation. Google Universal Analytics, however has since been deprecated and replaced with Google Analytics 4.

RAA needed to export all the Google Universal Analytics data related to Insurance Marketing to the Azure cloud environment because of the discontinuation of UA effective from June 30th 2023, announced by Google, where all data would be removed.

Due to the inability of processing new data and accessing the properties on Universal Analytics, RAA is limited to only the new data available on Google Analytics 4 and will not be able to provide historical information and trends on the users of the sites unless the legacy data is migrated.

SOLUTION

Exposé employed and developed the advanced analytics solution in Microsoft Azure with reusable pipelines built in Azure Data Factory for not only extracting GUA Insurance marketing data, but also extracting e-commerce transactions data.

The solution includes parameterised pipelines reading detailed configurations from the metadata control table with Azure SQL database, supported by database scale on demand up to massive computational scale for storing massive data volumes.

The solution leveraged the functionality of extracting RAA's last 5 years of GUA Production and Archive accounts and now includes custom data extracts (more than 1,200 extracts). This equates to, on average 8-9 millions of records per extract.

The solution then also handles the limitations provided by Google where not more than 9 metrics and 10 dimensions can be extracted at once.

BUSINESS BENEFITS

RAA now has all required historical data for reporting purposes in their data platform and can leverage reporting from both historical and new Google Analytics 4 platform.

The intention of this project from the outset was not just to migrate relevant data for RAA, but to establish a data pattern methodology and set of reusable pipelines for future work by the data services team. If at any point, RAA needs to load additional tables from the API source, it is now a matter of adding those records to configuration which will leverage the existing data patterns and standards.

A series of workshops and education sessions were held with relevant RAA teams and staff to upskill not only on the solution but the data pattern, reusability, and orchestration components which can be taken, used, and expanded upon for other integrations into the data platform.

Our Testimonial

David Good – Data Product Manager, RAA

"We could not be happier with the professionalism and quality of work received from exposé, proving themselves as highly effective technology partners in the Azure space. I was most impressed by their ability to look at our complex requirements and advise best practices for code reuse via patterns, thinking for the future, not just now. While facing technical challenges, the exposé team communicated them clearly and outlined the impact, which allowed us to forward plan within the project. When asked to provide knowledge transfer to our data engineers, the exposé team structured sessions perfectly and allowed us to progress skills while securing successful delivery of the project."