Executive Summary

Batteries Plus was struggling to work with a legacy data warehouse and its disparate ingestion sources in support of sales performance and inventory data for their franchise stores. After a failed attempt to implement a near real-time data solution with another intelligence and analytics platform, they turned to Google and Onix to modernize their systems by re-architecting them. They sought Onix expertise for implementing their data pipeline, schema, queries and data using BigQuery and Looker — and to avoid the typical pitfalls, particularly regarding data and systems security.

Partner Solution

Onix conducted a data strategy and design engagement and led the implementation. Since the data warehouse and real-time data pipeline would include Corporate and Franchise owner stores nationwide to connect to the existing order management process, BigQuery was the best option for data management.

The Data Strategy engagement focused on requirements analysis, design, a roadmap and the backlog — and on governance and creating an operations plan. The implementation centered around the data pipeline, schema, queries, data security — and hooking up a Looker dashboard before a handoff to the customer's operations team.

Onix used Google Pub/Sub to facilitate asynchronous streaming functions to ingest data from Azure and create publisher and subscriber event streams — systems of event producers and consumers — and Google Cloud Dataflow to facilitate and optimize the streaming pipelines.

Ongoing MSP-managed data operations to help the customer maintain and optimize the EDW environment were also provided by Onix.

Customer Challenge

The company wanted to enable real-time insights into sales performance and inventory for their franchise stores. Their highly complex legacy Azure data warehouse and EDW environment for E-Commerce, accounting, CRM, ERP, product and inventory, POS systems and approximately 300 databases, integrations and nightly maintenance jobs presented challenges to produce real-time data. After a disappointing attempt to gain near-real time data using Birst, the company decided to move to GCP. Onix was engaged to overcome the lack of internal expertise with BigQuery and Looker implementations — and the management of data security.

Batteries +Bulbs.

About the Customer

Founded in 1988 in Green Bay, Wisconsin, Batteries Plus is the nation's largest and fastest growing battery franchise, with 700+ locations throughout the United States. Their stores serve millions of customers and have access to tens of thousands of products, from the everyday to the hard-to-find. Customers appreciate convenient services such as battery testing, phone repair, key fob programming and much more.

Why GCP?

The previous proof of concept attempt by Batteries Plus to use a near-real time data pipeline was too slow and did not meet expectations. Since the Looker engagement was Google-direct, the company turned again to Google. The decision to use GCP for data management proved to be a logical next step. As Onix had recently wrapped up a large VM migration for another team at Batteries Plus, Onix was engaged to develop the back-end data pipeline for GCP. It would be used with Looker Sales Dashboard visualizations then under development by Looker.

Cloud VPN	Cloud Pub/Sub	Cloud Dataflow	Cloud Functions	BigQuery Batteries_Load	BigQuery Batteries_EDW

Why the Customer Chose Onix?

After Onix developed trust and credibility with the company during a large point of sale VM migration to GCP, Batteries Plus re-engaged Onix to develop the back-end data pipeline for the Looker visualizations under development in the Sales Dashboard — and to implement BigQuery for data management since the company's data spans corporate and franchise owner stores nationwide that needed to be connected to the existing order management process.

"Kim was able to jump in and quickly get up to speed without much background on our solution up to this point. She was able to analyze the queries Looker was producing to identify that they were not working correctly. Once the team became aware of this, they were able to rapidly make the necessary changes to the Looker code to get performance back to where it should be."

- **Jim Seidenschnur**,
Data Architect

Impact and Results

Batteries Plus executive leadership and franchise owners now have near real-time dashboards not previously possible to produce; the organization is positioned to incorporate additional data sources and dashboards such as inventory and CRM. Further, the company IT team now has the tools and skill sets to analyze Looker query results and make necessary changes to the Looker code rapidly if needed. The Batteries Plus data architect reports that user feedback from the launch has been very positive so far. He keeps hearing how it's so much faster and more intuitive than their last system.

About Onix

Onix is a world-class cloud consultant and a Google Cloud Premier Partner. We strive to elevate every client embarking on a cloud journey to new levels through our prescriptive methodology that comes from years of experience. With proven success across hundreds of projects, our team of architects and consultants help accelerate the customer experience by partnering with the customer throughout the cloud journey to help build customized solutions. We back our strategic planning and deployment expertise with incomparable service, training and support to succeed today and in the future.

Contact us
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