



CASE STUDY

Optimizing Analytics Costs: Neev Systems Drives Quotient's Transition from Qlik Sense to Apache Superset



About the Client

Our client, Quotient, is an SMB enterprise that has been using Qlik Sense for their enterprise reporting needs. With a focus on cost optimization and the need for a more scalable and open-source solution, they decided to migrate to Apache Superset. Quotient's business users rely on these reporting tools to access and analyze data from multiple sources, including Netsuite, Salesforce, Engineering System's SQL Server, and BI Snowflake. The transition aimed to address their evolving needs efficiently.



Challenges

Cost Optimization: Qlik Sense was costly, and Quotient sought a more cost-effective and open-source solution.

Usability: While Apache Superset is cost-effective and open source, it was not suitable for heavy usage users, so the challenge was to ensure it meets their reporting needs.

Data Migration: Migrating reports and data from Qlik Sense to Apache Superset required careful planning and execution.

Performance: Reporting performance differences between Qlik Sense and Apache Superset had to be considered, particularly since Superset's performance depends on the backend sources.

Data Availability: Real Time Data Availability was a challenge and Business Users had to go through some process to refresh the data.



Solutions

To address these challenges, Quotient leveraged Apache Superset and BigQuery:

Data Modeling: BigQuery was used to build datasets and data models required for Apache Superset reporting, matching the existing data grain from Qlik Sense reports.

Data Sources: Data from Netsuite, Salesforce, and Engineering System's SQL Server was pulled using Apache Airflow, and direct views on IT Enterprise BigQuery were used for reporting.

Performance Considerations: While Qlik Sense operates on its own inbuilt memory engine, Apache Superset's performance depends on efficient data modeling and backend sources like BigQuery.

Data Sync : Implemented Architecture so that the source data changes and additions will be automatically synced up with BigQuery datasets.



Benefits

The migration to Apache Superset brought several tangible benefits to Quotient:

Cost Savings: By transitioning to Apache Superset, Quotient achieved significant cost savings due to its open-source nature.

Scalability: Apache Superset provided a scalable solution for their reporting needs, accommodating future growth.

Advanced Features: Quotient gained access to recent advanced features of Apache Superset, enhancing their reporting capabilities.

Streamlined Architecture: The new architecture streamlined data access and reporting processes, ensuring operational efficiency.

User Friendly: With minimal Training Business Users were able to Slice and Dice the data in Apache Superset and build their own Reports.



Approach and Methodology

The migration from Qlik Sense to Apache Superset was executed using a structured and systematic approach, ensuring a seamless transition while addressing the client's cost-saving and reporting needs. The methodology encompassed the following key steps:

Cost Optimization Assessment: The initial step involved assessing the cost implications of the existing Qlik Sense system. Recognizing the potential for cost savings by transitioning to an open-source solution, Apache Superset, was a pivotal driver.

Data Migration and Transformation: Data migration from the original sources, including Netsuite, Salesforce, and Engineering System's SQL Server, was managed using Apache Airflow, an efficient data pipeline tool. The data was directed to IT Enterprise BigQuery for enhanced accessibility and preparation. Data modeling within BigQuery was performed to ensure alignment with the existing data grain of Qlik Sense reports.

Portal Configuration: The QT Portal, a key component for business users to configure different Plans and Groups, was reconfigured to write changes directly to IT Enterprise BigQuery. This adjustment facilitated real-time data updates, ensuring data accuracy and availability for reporting.

Reporting Tool Transition: The heart of the migration involved the transition from Qlik Sense to Apache Superset (Analytics Superset). While Qlik Sense provided a superior look and feel in terms of reporting visualization, the client was driven by the compelling advantages of cost optimization and the recent advanced features of Apache Superset. This decision was instrumental in selecting Apache Superset as the primary reporting tool.

Performance Optimization: It was essential to consider reporting performance differences between Qlik Sense and Apache Superset. Apache Superset's performance is significantly influenced by the backend data sources, which include BigQuery and Snowflake. To ensure optimal performance in Apache Superset reporting, efficient data modeling and well-optimized backend sources were crucial.

About Neev Systems

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