Case Study Nationwide Auto Loan/Financing Company



Facts:

Industry: Financial Services

Privately-held with a network of more than 18,000 new and used car dealerships, throughout the U.S.

Revenues: \$1.8 Billion

Specializes in the acquisition and servicing of prime & subprime automotive retail installment contracts

1,400 employees

Over 170 Dealer Account Managers in all 50 states



Background

This Southern California-based auto loan financing company has invested heavily in technology in every aspect of its operations and this investment has resulted in unparalleled efficiencies and mobility in accessing and analyzing the critical path of all transactions. Recently, the growth of on premise historical data and the demand for ad-hoc queries has quickly expanding, causing IT staff to rethink a scalable solution to meet growing demands.

Challenges

- > Internal IT infrastructure not able to scale to meet the needs of the business.
- > Incumbent software and hardware vendors pushing costly lastgeneration technologies, without an understanding of business realities.
- Large, multi-join queries taking hours to complete, impacting critical start-of-day reporting and the ability to support on-demand and ad-hoc queries for the organization.
- > Growth of on premise historical data and needs for timely query execution, as well as, expanding demand for ad-hoc queries were unable to be incorporated into key KPIs, needed by CFO and risk management team.
- > IT staff and management operating in a demoralized, fire-to-fire environment.

Proof of Value Platform Powered By:



Solution

Tectonic, together with Google Cloud Platform enterprise team, engaged both the business-side and the internal IT staff to gain an understanding of the whole picture. Subsequentially, Tectonic undertook an intensive 4-week System Assessment with the company's IT department to fully describe a planned migration of the daily reporting system into a modern data architecture hosted on Google Cloud Platform. Major considerations included, the examination of the current application (code analysis and migration risk identification); streamlining internal DB-to-DB replication processes; analyzing and describing reporting needs and contraints; and identifying current and projected future IT team skill sets.

Proof of Value Outcome

- > Integrated 500GB (3-years of data) from 17 tables, filtered 12 different ways and grouped by business unit.
- > Developed one, 17-join (12-way filter) query and with the on premise MySQL server the query performed in over 75 minutes, but with Google's BigQuery the query performed in only 12 seconds.
- > Took the 17-join query and integrated the "Write the way you Read" design pattern into the development, which resulted in the data first being read by Google's BigQuery and then returning to the client web browser in only 1.6 seconds - significantly reducing query time from over 75 minutes to 1.6 seconds (performance increase over 2800X).
- > Streamlined internal replication processes by reducing IT downtime by over 40% without added hardware or software costs.
- Imparted knowledge transfer to company's IT staff which resulted in a reinvigorated and motived staff, now using the most modern query and data approaches.