CASE STUDY

VOLTDB CASE STUDY
NIELSEN

Nielsen, the popular market research firm, helps companies understand what brands and products consumers are buying (Nielsen Buy) and what shows and channels they are watching on their devices (Nielsen Watch).

For effectively marketing to the device-switching consumers of today, it is crucial to account for the value that can be attributed to each customer touch point. VisualIQ is Nielsen's industry-leading Multi-Touch Attribution software platform that enables companies to optimize their marketing across channels and generate effective marketing campaigns to influence the consumer's journey. VisualIQ runs on VoltDB.

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Marketing Planner

Marketing Planner is Nielsen's online tool for marketers to maximize the return on their spend by building forecast scenarios, running simulations, and generating cross-channel models that are driven by hard data. Predictive analytics estimate the impact of planned marketing scenarios and allow multiple feedback loops into the dynamic systems of marketing.

In addition to being a valuable tool for their customers, VisualIQ technology enables Nielsen to scale their large dataset operations to meet the ever-growing demand.

VOLTDB

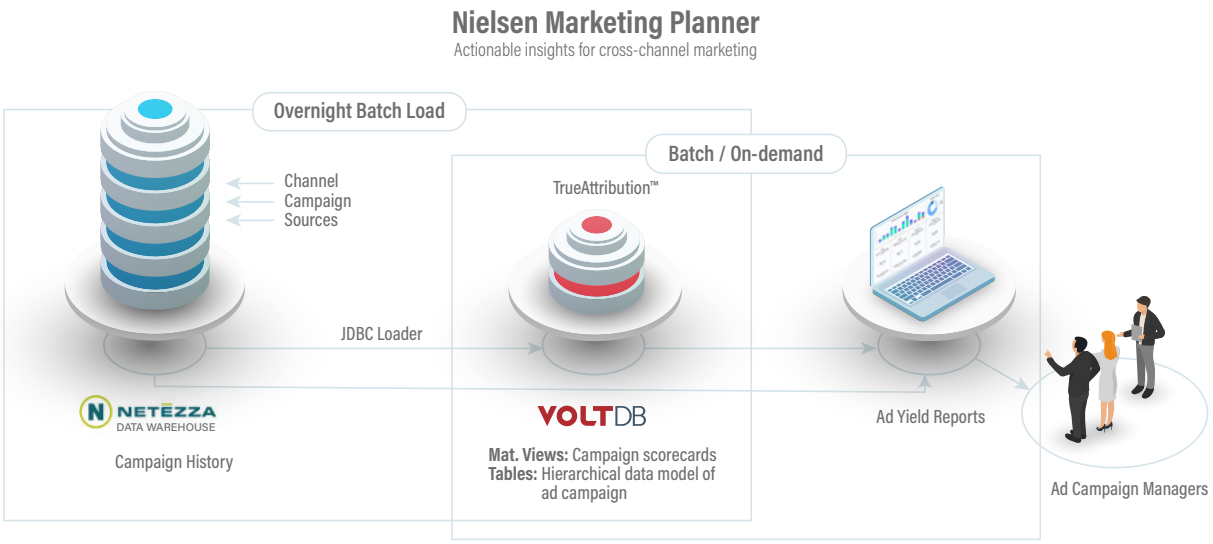
Solution Architecture:

VoltDB enables the Marketing Planner to operationalize the analytics generated by their Netezza data warehouse. VoltDB is deployed on the serving layer to generate both batched reports and ad yield reports on demand.

Historic campaign data including sales actuals and forecasts are stored and analyzed in Netezza. These analytics are loaded into VoltDB through the JDBC loader as regular batch operations. As the fastest in-memory database, VoltDB is able to support users to build complex 'what-if' type scenarios in real-time using the web-based tool.

VoltDB's stored procedures run Nielsen's proprietary TrueAttribution algorithms to generate the views from hierarchical data for the user's analysis. Instead of a hard to use procedural language, VoltDB allows programmers to easily build or borrow functionality using User Defined Functions or Stored Procedures written in Java+SQL.

VoltDB's materialized views and windowing functions provide aggregations to generate the metrics that serve as the endogenous variables to the ad campaign models.



While VoltDB is best known for supporting highly transactional online applications such as credit card processing, online auctions, fantasy gaming, fraud detection, or telecom call processing, VoltDB has also been put to great use in analytical applications to operationalize the insights generated by the traditional OLAP systems. As a fast scalable in-memory data processing systems VoltDB can be effective as a powerful tool for system architects to tackle complex data processing challenges in a wide variety of use cases as hopefully demonstrated by this case study of VoltDB at Nielsen.

About VoltDB

VoltDB powers applications that require real-time intelligent decisions on streaming data for a connected world, without compromising on ACID requirements. No other database can fuel applications that require a combination of speed, scale, volume and accuracy.

Architected by the 2014 A.M. Turing Award winner, Dr. Mike Stonebraker, VoltDB is a ground-up redesign of the relational database for today's growing real-time operations and machine learning challenges. Dr. Stonebraker has conducted research on database technologies for more than 40 years, leading to numerous innovations in fast data, streaming data and in-memory databases. With VoltDB, he realized the full potential of tapping streaming data with in-memory transactional database technology that can handle data's speed and volume while delivering real-time analytics and decision making. VoltDB is a trusted name in the industry already validated by leading organizations like: Nokia, Financial Times, Mitsubishi Electric, HPE, Barclays, Huawei, and more.