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NUCLEUS RESEARCH

RUN QUERIES OVER 75 PERCENT FASTER WITH BIGQUERY

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THE BOTTOM LINE

Nucleus found that customers moving to Google Cloud BigQuery from on-premises data warehouse solutions accelerate data processing by over 75 percent while reducing data storage costs by 30 percent and ongoing administrative expenses by over 25 percent. By consolidating data engineering, data warehouse, and data science capabilities under a single fully-managed platform, BigQuery can accelerate compute, reduce data analysis costs, and streamline data management. As BigQuery continues to optimize its platform architecture for compute efficiency and multi-cloud support, Nucleus expects the vendor to see rapid adoption and further penetrate the data warehouse market.

OVERVIEW

Over the past few years, organizations have channeled investment into cloud modernization to improve profitability, reduce costs, and become data-driven, creating an explosion of data collection and utilization. As a result, customers increasingly adopt modern data warehouse technologies to inform the accelerating expansion of data-informed applications and use-cases.

With the rise of modern open-source staples such as Kubernetes and Apache Spark, data warehouses have evolved from archaic units of specialized hardware to flexible cloud services assuring constant availability alongside data durability and accuracy. As legacy technologies struggle to keep up with these new demands, customers increasingly look towards cloud-native fully-managed data services capable of delivering cost-efficient storage and compute while automating many common IT and administrative tasks. Now, customers prioritize a solution's respective scalability, serverless capabilities, multi-cloud completeness, and performance optimization for big-data and parallel tasks in competitive decision-making.

GOOGLE CLOUD BIGQUERY

BigQuery is Google Cloud's serverless data warehouse solution helping enterprise customers manage and analyze their data with built-in features, including machine learning with BigQuery ML, geospatial analytics with BigQuery GIS, and business intelligence (BI) with BigQuery's BI engine. Customers can easily ingest data into BigQuery through various modalities, including batch loading, data streaming, and live connectors with third-party applications. BigQuery is a fully managed and serverless data analytics platform capable of reducing the administrative burden by automating resource provisioning and load balancing tasks. This serverless approach also separates compute and storage, driving cost-efficiency for customer organizations while minimizing latency for time-sensitive processing tasks. Customers can also perform multi-cloud analytics without having to move or replicate data stored within AWS S3 or Azure blob storage using BigQuery Omni. Google pairs these capabilities for petabyte-scale analytics with integrated BI solutions, including Looker, Tableau, and Power BI, to translate analytics into rich visualizations and actionable insights.

BigQuery reduces administrative costs by over 25 percent

KEY BENEFITS

Customers experienced various tangible benefits from adopting BigQuery, including accelerated processing, reduced administrative costs, and improved customer experience.

- **Accelerated Processing.** Organizations that moved from on-premise data warehouses to Google BigQuery circumvented their previous storage and compute limitations. With BigQuery's scalable and elastic architecture, these organizations accelerated data processing by over 80 percent.
- **Reduced Administrative Costs.** Customers adopting Google BigQuery simplified administrative efforts with BigQuery's fully managed approach to data warehousing. One customer interviewed by Nucleus reduced ongoing administrative expenditure by over 25 percent, while another reduced data storage costs by 30 percent by eliminating data redundancy across multiple silos.
- **Improved Customer Experience.** Organizations adopting BigQuery were able to position data faster for their customers, driving customer satisfaction with highly personalized experiences and improved data access.

CUSTOMER PROFILES

The following profiles are from Nucleus interviews with organizations that adopted Google BigQuery within the last three years:

SECURITY SERVICES PROVIDER

This American security services provider offers various products for home security, safety monitoring, and smart home automation earning over $5 billion in annual revenue. It employs over 17,000 professionals with over 200 locations, serving over six million customers. Prior to adopting Google BigQuery, the organization experienced latency in processing, limiting the reach of data throughout the business. To address these challenges, the organization decided to adopt Google BigQuery as a part of its data warehouse modernization initiative.

The organization spent 11 months implementing Google BigQuery, in which it set up the data pipeline and necessary front-end connectors. Following the deployment of Google BigQuery, the organization achieved over 90 percent faster query processing with expanded storage and compute thresholds. Now, the organization can position data faster for all of its customers and leverage data as a tool to create personable experiences and drive customer satisfaction.

TELECOMMUNICATIONS COMPANY

This Canadian telecommunications company offers a wide range of telecommunications products across internet service, entertainment, healthcare, video, and television to more than 70 million clients, earning over $13 billion in annual revenue. Before adopting Google BigQuery, the organization maintained multiple data warehouses creating disparate silos and a degree of redundancy from inefficient data management. To improve data management and consolidate its data infrastructure, the organization chose Google BigQuery for modern cloud data warehousing.

Reduced data storage costs by 30 percent

The implementation occurred over 14 months, in which the organization deployed Google BigQuery alongside various data integration and management solutions. Following deployment, the organization noted 30 percent improved storage efficiency and reduced analytic processing latency by over 80 percent. The organization also noted ongoing administrative savings of over 25 percent by maintaining one cloud data warehouse rather than multiple siloed systems.

LOOKING AHEAD

BigQuery is central to Google Cloud's vision of supporting customers' Data Clouds by unifying their data lifecycle across databases, data analytics, BI, and AI use cases. With Google's unmatched budget for research and development, customers continue to select BigQuery, valuing the vendor's accelerated roadmap and differentiated pace of innovation. As the vendor continues to extend its partnerships and physical data center presence alongside investment into new networking technologies and multi-cloud support, Nucleus expects BigQuery to expand its market presence.