Condé Nast Delivers Engaging Online Content With DataStax Enterprise

Condé Nast is a premier media company renowned for producing high quality content for the world's most influential audiences. Attracting more than 144 million consumers across its industry-leading print, digital, and video brands, the company's portfolio includes some of the most iconic titles in media, including Vogue, Vanity Fair, Glamour, GQ, The New Yorker, and Wired.

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USE CASE:
Recommendation & Automatic Optimization

INDUSTRY:
Media

CHALLENGES:

- Process a large volume of user data quickly and in real time
- Achieve performance at scale and at low cost
- Derive meaningful insights from user behavior
- Implement relevant marketing campaigns to drive user engagement and subscription rates

SOLUTION:

- DataStax Enterprise (DSE), powered by Apache Cassandra, a globally distributed, scalable, powerful, and intelligent cloud database
- DataStax Managed Cloud, a fully managed, always-on database, powered by DSE for real-time, globally distributed enterprise applications, deployed on Amazon Web Services

RESULTS:

- Introduced multivariate website testing and improved digital click-through rate by 30%
- Achieved a response time of less than 4 milliseconds for 7,800 requests per minute
- Innovative, machine-learning and AI-enabled Feature Store built on DSE offers full traceability from data source to final outcome, as well as algorithm-based optimization of the recommendation system
- Lowered the time and cost of analyzing content using the Feature Store; reprocessing is now 650% faster

THE CHALLENGE

Condé Nast Inc. is an American mass media company founded in 1909 by publisher Condé Montrose Nast. Today, the company is owned by Advance Publications. In 2016, Condé Nast announced the launch of Condé Nast Spire, a new division that focuses on finding links between consumers' purchasing activity and content consumption via Condé's own first-party behavioral data.

Today, Condé Nast's business objective is to increase subscription rates by improving the customer experience and customer engagement model. In order to determine how to better engage its customers, Condé Nast launched a multivariate testing initiative with the goal of fully understanding its user base and the types of content, web layouts, and visual displays that appeal to each target segment.

In addition, Condé Nast wanted to leverage the data gathered in its multivariate testing initiative to provide personalized content and recommendations to web visitors. This, they hoped, would translate to a more engaging experience and increased online subscribers. Inspired by Uber's AI and machine-learning project, Michelangelo, Condé Nast set out to build its own machine-learning workflow based on a DataStax-powered Feature Store.

> With DataStax Enterprise, Condé Nast is able to leverage the insights from multi-variate testing to not only build an optimized customer experience but also to improve engagement. We're now seeing an increase in click-through rates of 30 percent and our data science team feels empowered to make more informed decisions for their models, driving to better consumer engagement ."

- Antonino Rau, Director, Data Engineering & Intelligence, Condé Nast

THE SOLUTION

Condé Nast needed a powerful database solution and narrowed its search to DSE and Amazon's Dynamo DB. DSE won during a benchmark comparison where the team tested each solution's ability to scale to match Condé Nast's traffic from more than 20 brands, 50 million daily visits, and more than 100 million monthly unique visitors. In addition, DataStax offered DataStax Managed Cloud, a fully managed, always-on database deployed on Amazon Web Services.

"DataStax Managed Cloud allows us to commission and decommission DataStax Cassandra clusters very easily for both production and non-production environments," said Antonino Rau, Director of Data Engineering and Intelligence at Condé Nast. "This has enabled us to quickly prototype and deploy numerous projects, including our Feature Store Service. It also allows us to easily give access to our clusters to other people in our organization, and for everyone to monitor the health and workload of our clusters."

THE RESULTS

DSE quickly enabled Condé Nast's multivariate testing initiative to take flight. Response times proved to be less than four milli-seconds for 6,000 requests per minute, allowing Condé Nast to execute new website tests fast and as-needed.

Moreover, the Feature Store empowers data science teams to make successful real-time predictions, deliver targeted marketing content more effectively, and increase user engagement on their web and mobile properties. Reprocessing time has improved by 650%, meaning that Condé Nast can double the number of models and projections stored. Feature Store read latency is now less than 4 milliseconds for 1,800 requests per minute, and write latency is less than 10 milliseconds for the same amount of requests.

TECHNOLOGIES USED

- DataStax Managed Cloud
- DataStax Enterprise