Google™

Ad Network Sharpens Targeting with Google BigQuery

boo-box
Ad Tech & Social Media

At a Glance

What they wanted to do
- Implement a powerful data analysis tool to quickly gain insights into ad distribution
- Serve customers better by targeting ads more effectively
- Avoid adding machines and specialized staff

What they did
- Chose Google BigQuery to take advantage of Google's vast data processing infrastructure
- Analyzed large data sets using a simple, SQL-like language
- Improved targeting by gaining insights into the performance of ads placed on 350,000 blogs and websites each month

What they accomplished
- Gained the ability to analyze billions of rows of data in five seconds
- Saved $200,000 per year by avoiding the need to buy additional machines or train staff
- Improved decision-making, customer service and ad spend through more detailed reporting

Organization

Boo-box, which runs one of the top ad networks in Brazil, uses Google BigQuery to target its ads more effectively. Under the Boo-box model, publishers earn money by hosting ads on their websites and blogs, while advertisers reach new customers by displaying ads on websites that deliver the best results. Boo-box, which Fast Company called one of the world's most innovative companies, uses BigQuery to hone its targeting and gain near real-time insights into the more than 3 billion ads it places on 350,000 blogs and websites each month.

Challenge

As the Sao Paulo-based Boo-box's user base and ad inventory grew, the company needed to be sure that its system was targeting ads as effectively as possible. Chief Technology Officer Thyago Liberalli and his team wanted a tool that would improve the system's intelligence by quickly processing the hundreds of millions of records it generated daily on ad impressions, click-throughs, website views and other variables.

The team tried using MySQL Triggers – code that automatically updates information throughout a database each time one change is made – to uncover relationships within the data, such as the numbers of unique users per ad, per publisher and per format (for example, banner vs. video ads). However, this approach was tedious, since the team needed to update the code each time they wanted to explore different relationships. They then tried Hadoop, but it proved unfeasible since it required continual investments in infrastructure and a specialized staff to run.

The team needed a less cumbersome, highly scalable tool to gain deeper insights into the information and improve ad targeting.

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> —*Thyago Liberalli, Chief Technology Officer, Boo-box*

Solution

Boo-box began using Google BigQuery in early 2011. The web-based service, which enables companies to analyze massive datasets using Google's data processing infrastructure, helps Liberalli and his team

About Google BigQuery

Google BigQuery is a web service that enables companies to analyze massive datasets – up to billions of rows in seconds – using Google's infrastructure. Scalable and easy to use, BigQuery lets developers and businesses tap into powerful data analytics on demand using a familiar SQL-like query language.

For more information, visit
http://cloud.google.com/products/big-query.html

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—Thyago Liberalli, Chief Technology Officer, Boo-box

gain the robust insights they need without having to purchase expensive machines or train staff. In addition, the service uses a familiar, SQL-like query language that was easy for the staff to learn.

Liberalli and his team upload their data to Google Cloud Storage, which allows users to store and manage data on Google's infrastructure. From there, they import the information into BigQuery. They can analyze billions of rows of data in seconds, enabling them to explore their data much more deeply than they could with MySQL Triggers or Hadoop. They can query the data to discover how many unique visitors are viewing blogs and websites, identify the most successful ad formats and gain other information.

"Google's infrastructure gives us incredible data processing capabilities with little effort on our part," Liberalli says. "BigQuery lets us perform analyses on the fly and receive answers in seconds. We know that as our customer base grows, the service will scale with us."

Results

Google BigQuery is saving Boo-box more than $200,000 per year, since the company does not need additional hardware or to train staff to run a Hadoop system. Just as important, BigQuery's fast insights are helping Boo-box customers achieve better results from their ad spending.

"We can now provide our customers information such as the number of unique visitors to their ads on different websites and blogs, which we couldn't in the past," Liberalli says. "This improves their engagement with the service and has even increased their ad spend."

BigQuery's power and ease of use are also helping Boo-box staff with other important business tasks. They can use insights gained through the service to develop complex revenue forecasts, for instance.

"BigQuery has helped strengthen our company in many ways," Liberalli says. "For any company needing a powerful analytics solution, BigQuery should be the top choice."