

Vertica Customer Behavior Analytics

The Vertica Advanced Analytics Platform helps data-driven organizations manage and analyze massive volumes of customer data from Web logs, third-party analytics tools, social media, call detail records (CDR), and traditional CRM and other customer records from enterprise systems. Organizations can transform that data into actionable information, enabling them to better understand how their customers and site visitors interact with their business. With Vertica, you can completely understand your customers and improve the customer experience and your bottom line.

Product Highlights

What Customers Want (and How You Know)

According to Wikipedia, "Customer Analytics is a process by which data from customer behavior is used to help make key business decisions via market segmentation and predictive analytics. This information is used by businesses for direct marketing, site selection, and customer relationship management."

With customer behavior analytics, your organization has the information you need to better satisfy your customers by enhancing the customer experience, creating products and services geared to specific customer needs and requirements, and predicting customer behaviors before a new product or service is released to the market. As consumers have gained the upper hand in the business/consumer relationship due to increased access to information and the exponential increase in choice and channels, organizations of all sizes

need to take advantage of customer analytics to remain competitive.

Delivering Value Across Industries

Customer Behavior Analytics is vital for just about any industry or market segment. By understanding how your customers (or constituents) behave and interact with your organization, you can better serve, and profit, from the interactions. The key to effective customer analytics is first understanding customers, and then building products and services that best meet their needs. Some examples include:

- **Online and mobile.** Online and mobile businesses, including online gaming, social media, and mobile business, and organizations that have an online component to their offline business (i.e., any business with a website), have a need to improve the effectiveness of their Web properties. Analyzing clickstream data (the series of clicks a site visitor makes on your website) provides rich insights into which pages are effective and which pages site

Quick View

- Massively Parallel Processing (MPP)
- Performance at Exabyte scale
- In-database machine learning functions
- Functions for clickstream, sentiment, and churn analytics

visitors ignore. When combined with sales and conversion data, clickstream analysis can help you discover the most effective series of steps needed to encourage conversions, sales, and add-on purchases.

- **Retail.** As competition has increased, retailers have been using the increasing amounts of data they collect to gain a competitive advantage. Loyalty programs, customer tracking solutions, and market research, when combined with sales and inventory data, provide rich insights that drive decisions around products, promotions, price, and distribution management. And, being able to target specific individuals provides opportunities for upselling and cross-selling based on actual purchase patterns, instead of guess work.
- **Financial services.** Today, banks, insurance companies, and other financial institutions use customer analytics to understand the lifetime value of customers, increase cross-sales, and manage customer attrition, among other programs. The ability to understand how customers use different banking programs—credit and debit cards, mortgages and loans, and online banking tools—enables these financial services companies to develop targeted campaigns that increase customer satisfaction and increase profits through additional purchases or participation.
- **Communication Service Providers (CSPs).** There is a wealth of information contained in the call detail records (CDRs) generated with each and every call made from a mobile phone. Information like length of call, number called, a dropped call, and more, are all recorded, creating a massive amount of information for CSPs. In addition, cable service providers track usage information about their broadband data, voice over IP, and cable entertainment for all of their customers. The ability to analyze these massive volumes of data enables these service provider customers to develop effective promotions to attract and retain customers, reducing churn and increasing profitability.

Manage and Analyze All Your Customer Data with Vertica

Vertica is a purpose-built platform for running analytics on massive volumes of customer

data with these core features—all delivered at an overall lower total cost of ownership:

- **Blazing-fast analytics**—Gain insights into your data in near-real time by running queries 50x–1,000x faster than legacy database and data warehouse solutions.
- **Massive scalability**—Easily scale your data analytics solution by adding an unlimited number of industry-standard servers.
- **Open architecture**—Protect your investment in hardware and software with built-in support for Hadoop, Kafka, Spark, R, and leading BI/ETL tools.
- **Easy setup and administration**—Get to market quickly with your Big Data analytics initiatives at low cost of administration and maintenance.
- **Enhanced data storage**—Store 10x–30x more data per server than traditional databases with columnar compression

Customer Behavior Analytics Case Study

An online gaming company with more than 100 games on various social media platforms had been experiencing explosive growth, and their data analytics program was suffering from the success. As a data-driven organization, this company could no longer run their A/B tests and get reports on their tens of millions of users due to the performance of their MySQL database.

After testing the Vertica Advanced Analytics Platform in a trial, the company implemented the platform into their production environment. Since the transition to Vertica for their testing and analysis, A/B test result queries that used to take nine hours now return in 12 seconds. In all, the company adds 800 million rows of event data per day. Their largest table is the events table with 1.2 trillion rows, and they have 50 million rows in the dimension table for users and some other smaller tables.

There are three main consumers of the data at the company—the game developers, the marketing team, and the ad acquisition group.

- **Games Team:** The game producers have the job of making the company's games as fun as possible, so they basically ask questions all the time. For example, "show me a funnel of how many people completed these eight steps and where they dropped off from the game."

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The games team uses this information to refine the game, making it easier and more fun to get to the next step. Continuous game refinement allows the company to quickly tailor their games to make them more interactive and profitable on an ongoing basis.

- **Marketing Team:** Marketing asks questions that are user-centric and mostly about segmentation. For example, "What segment of users play only once a week? Who are they and what percentage of our revenues do they correlate to?" Marketing then uses this information to determine whether to spend budget on building specific features, such as a notification feature telling them "Here's what you missed this week." With Vertica, the marketing team has a better understanding of their marketing ROI based on real information—not guesses.
- **Ad Acquisition:** Ad acquisition is a very specific application, but typical in online businesses. The company buys a lot of advertising for their games and must be able to calculate outliers, and segment their ad spend. The data the ad acquisition team analyzes helps them manage the cost of buying advertising by being understanding every individual ad target, and then determining which ads to target to which online users.

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