Customer success brief

GameStop: Classic click & mortar success
HP Vertica powers better understanding of customer behavior

Use case
Customer analytics

Industry
Retail

Challenge
Gain insight on customer behavior to drive loyalty and improve business health

Solution
- HP Vertica Analytics Tableau

Company overview
- www.gamestop.com
- Headquarters: Grapevine, TX
- Founded: 1984
- Employees: 17,000 full-time

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– John Crossen, Vertica Lead, GameStop

Background
Many people are familiar with GameStop retail outlets, where you can find, buy, rent, and trade games. Based in Grapevine, Texas, GameStop is using Big Data to improve how it conducts its business and serve its customers. The electronic game industry is very fast-moving, with evolving game platforms and ever-changing styles of game and game interaction. GameStop is in the middle of this dynamic landscape, with eager players and enthusiasts on one side, and highly creative game development companies on the other.

How and why do they use Big Data and analytics? "We really wanted to get a better idea of our customers and their needs," says John Crossen, Vertica Lead at GameStop. "With prior reporting we got good overall views of how the *company* was doing, how a particular game series was selling. But we were using a traditional SQL-based platform to deliver flat reports. We weren't able to tie business health to the activities of individual customers, including likely future activities. Our existing toolsets and methodologies weren't going to help. That's where Vertica came into play, to drive us in that direction."

Getting to know the customer
Currently, GameStop supports approximately 4200 stores in the US and another 2200 internationally. The data they analyze is almost entirely internal. "We get data from our website, the PowerUp Rewards program for customers, and from individual cash registers in all those stores," says Crossen. "A lot of customers come not just to purchase a game but also to get information from store associates. We have *GameInformer Magazine* that people like to read, plus certain content on the website as well."

GameStop's analysis is about which games are being bought, which ones are being traded, which ones move at a certain price or not. Ideally, they learn the trends in the game industry before anyone else. "The value of analysis is determining who is likely to buy which series of games. Rapid analytics helps us target individual customers. You don't do email marketing around *Call of Duty 3* to somebody who is buying children's games. It might be *My Little Pony 6*. In the new-game market, there is no price movement, every game is the same price, at any store. So to differentiate we have to rely on other things like customer service and getting great information to the targeted customer to drive game sales."

Focused on speed, then integration
GameStop's initial push with Vertica was to get faster reports. "Our processing is primarily done in batch mode. When the registers close at night, we load that data into Vertica. It's been two years, and Vertica stores close to 24 terabytes of data—primarily individual customer data as well as Web logs from mobile applications. Before Vertica, we had processes that would literally take a day to run to accumulate data; now we can pull that same data out in five minutes, and I think if we spend a little bit more time we could probably get it faster than that.

"So the first big push was speed. The second push was about tying different data elements together in ways we hadn't done before, because the data sources that were simply unattainable. Like web click data, which is a tremendous amount of data that gets loaded for SQL queries. This wasn't doable before. And Vertica is made to do that. This new aspect of our BI process was faster than acquiring new data."

Big Data in the heterogeneous enterprise
GameStop's relies on Tableau for report visualization, based on ad hoc direct SQL queries. Integration technologies work with either SQL Server-based files or just flat files. "For flat files we use the Copy command to bring in data and that's very fast. With the Vertica 7 Microsoft SQL Connector, we are able to use our existing SSIS data flows and change the output from another SQL table to direct into Vertica; it uses the Copy command under the covers and that's been a major improvement. Before that we had to stage the data somewhere else and then use the Copy command to bring it in, which wasn't very efficient."

As businesses increasingly move from standard relational database environments towards Big Data for analytics, speed, and velocity in their reporting, Crossen describes the different mindset businesses need to embrace: "Consider how you are going to lay out your data modeling. In a row-store database you freak out if you have a 700-column table in the column stores, but with Vertica that doesn't matter. You shouldn't try to duplicate the row-store system as you move to the column-store system. We still use IBM's DB2 for our [row-store] transactional systems, but it doesn't have much analytic value for us."

The power of knowing what to change
"We moved to Vertica v7 quickly after it came out, mostly because of the Microsoft integration. We're going to move v7.1 pretty soon. We're doing everything we can to drive our customers to make that purchase. And with this powerful analytics capability, we're learning what things we can change on the website, recognizing that people aren't just using it to buy something. They're gathering information, searching for titles, and deciding if it's a game they might be interested in buying, whether they do that online or in-store."

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