

Case study

HP Vertica tool of choice for enterprise-wide strategic analysis



GSN Games collaborates with HP Vertica for game-changing analytics

Industry

Multimedia entertainment

Objective

Rapid data analysis powers strategic growth

Approach

Successful pilot of HP Vertica for A/B testing led to strategic enterprise-wide implementation

IT matters

- Reduce A/B test time from up to 36 hours to less than one-half second
- Significant increase in processing speed compared to other technologies considered
- Analyze trillions of data points in real time

Business matters

- Improve game development through rapid, iterative testing
- Develop better insights into whether new features will engage users and monetize well
- Increase user engagement and re-engagement
- Improve visibility into ad spend across different platforms, from Facebook to mobile



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—Portman Wills, vice president of Data, GSN Games



GSN Games is a leading provider of cross-platform entertainment, including social casino games and cash tournaments on its social, mobile and web-based gaming platforms. Thriving in the fast-paced online game development world, GSN Games develops dozens of new titles per year and pushes out five incremental releases per week. The HP Vertica Analytics Platform is central to GSN Games’ business, including its experimental approach to setting the company’s strategy.

When GSN Games piloted HP Vertica to speed up queries for its testing program two years ago, little did it know that the platform would become the dominant tool for measuring and tracking all of its data across the enterprise. A range of users—from game developers to marketing and ad acquisition staff—now rely on HP Vertica. The analytics platform enables GSN Games to collect and analyze game play, monetization, revenue and user engagement data to improve its business model.

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As a digital, data-driven business, GSN Games tests any change to a game to gauge its effectiveness. Through the process of A/B testing, the company is able to show a new feature to half of its game-playing audience, while the other half still sees the old version, acting as the test’s control group. Then, GSN Games compares the data between the two groups to see if the old or new feature performed better. As GSN Games grew from tens of thousands of users to tens of millions, the time required to run the analysis on these A/B tests increased from a few seconds to up to 36 hours. At that point, GSN Games considered its options and decided to pilot HP Vertica for A/B testing.

“GSN Games’ A/B test queries that previously took 24 to 36 hours now take less than a second with HP Vertica,” said Portman Wills, vice president of Data at GSN Games. “HP Vertica has eliminated the long cycle of waiting to analyze test results, which allows us to quickly run experiments and iterate much faster.”

Because HP Vertica was so successful for A/B testing, GSN Games implemented the platform and integrated it across the business.

HP Vertica platform enables experimentation

GSN’s games are instrumented, which means that every tap, touch, click and swipe files an individual record in the HP Vertica data warehouse. This occurs in real-time, giving

game producers and analysts the opportunity to look at that data and make decisions about what is and is not working in the games.

“In our flagship mobile application, we have tested if a push, flick or a tap motion works best for our players, and HP Vertica allows us to see which motion leads to the highest player retention and engagement rates,” said Wills.

For players, this ultimately leads to a better user experience and games that they engage with more frequently. “If our games are better, our players have more fun and are more likely to pay for a superior level of entertainment. Our business relies on identifying game features that lead to long-term player engagement,” Wills added.

In the rapidly-changing game industry, the demand for new content has grown to the point that players expect new games and features every month. GSN Games estimates that during the next couple of years, users will want to play a new and different game every week. “We have to make games much more quickly than we used to, and we have to optimize them even faster. The game industry will only continue to accelerate, and HP Vertica is the platform that allows us to move that quickly,” Wills said.

In a business where continuous experimentation is critical, GSN Games’ analytics platform enables the company to triangulate on the next big hit. “HP Vertica is the only product that allows us to analyze the trillions of data points in real-time,” Wills continued. “It’s astounding how quickly HP Vertica can chew through data due to its architecture.”

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A core part of GSN Games’ strategy is to take games that are already successful and iterate on them, which occurs through experimentation. “HP Vertica enables us to quickly see which of the permutations was the most engaging and rewarding to our players,” Wills said.

Customer at a glance

Application

Enterprise Software — Analytic Database Management

Software

• HP Vertica

Data informs business decisions

According to Jingbo Huang, director of Business Intelligence (BI) at GSN Games, HP Vertica is the company's main repository for its data—between 50 to 100 terabytes—and it ingests one-half terabyte of raw data into its database every day. Huang explains that when developers want to test a new feature, they can implement it quickly without requiring assistance from the BI team. Developers can analyze all of the data and make critical business decisions about whether or not to implement a feature.

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“HP Vertica is also vital to our user acquisition and marketing efforts, as the platform allows us to tie revenue to user acquisition. By analyzing the lifetime value of users, we can figure out whether it is worth the acquisition cost,” Huang noted. “If we have to spend five dollars to acquire this user, will we have a good return on that investment?”

Most of GSN Games' user acquisition strategy is based on data coming out of HP Vertica. The platform allows GSN Games to segment users into groups by age, gender or country. In terms of ad spend, HP Vertica allows GSN Games to pursue high-monetizing segments. Huang said, “All of this data is stored in HP Vertica, and then our user acquisition team analyzes it. The price of ads will change almost every day based on different factors and trends. We're able to adjust ad spend for different user groups, and depending on the price of these ads, to get a solid return on our investment.”

Huang explains that HP Vertica is important for GSN Games' efficiency, as it uses the platform for business development and to

test new features. “We wouldn't be able to do a lot of what we do now without HP Vertica,” Huang said. “It allows us to gather data extremely quickly and analyze it in a way that was impossible before. We're able to make decisions based on data and metrics instead of gut instincts.”

HP Vertica gives digital business an edge

GSN Games' business has experienced tremendous growth during the past few years. With HP Vertica as a partner, GSN Games is able to track its marketing dollars, gain new customer insights, and tweak games and payouts to positively impact players.

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As the mobile business begins to refine its segmentation, GSN Games will need more defined analytics around each mobile segment, and it will rely on HP Vertica to accomplish its goals. “HP Vertica gives us the clarity to analyze on a game-by-game and segment-by-segment basis, growing the business in a smart and effective way,” said Wills. “As our business becomes more segmented, defined and driven by data, the HP Vertica Analytics Platform provides the tools to make savvy decisions. HP Vertica will continue to play an important role in the growth of GSN Games.”

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