

## Case study

# Spil Games captures big data prize



**HP Vertica's performance enables sophisticated, real-time insight into the business logic underlying web-based products**

### Industry

Online gaming

### Objective

Capture and leverage enormous volumes of website data to enable both real-time website adaptability and improved business insights and decision-making

### Approach

Implement a robust, scalable big data platform capable of executing queries on many terabytes of data with minimal lag time

### IT matters

- Queries faster than previous open source solution by at least two orders of magnitude
- Websites adapt dynamically to visitor behavior, adjusting content within 12.5 minutes based on visitor clicks

### Business matters

- Business transformed into data-driven enterprise: more than 60% of employees now use BI and analytics at least monthly; more than 25% daily
- Business can respond more nimbly to customer behavior, enhancing products and then observing the effects within 15 minutes of user activity; this in turn drives improved engagement and retention
- Improved insight into site visitors improves value of ad placement, which in turn drives revenue and profitability
- BI and analytics services enhance value of gaming platform to third-party developers, providing a competitive advantage



**“For Spil Games, HP Vertica was a transformative technology. It turned the company into a data-driven organization.”**

– Rob Winters, Director of Reporting and Analytics, Spil Games

For Spil Games, a global leader in online casual and social gaming, website engagement and customer retention are critical business metrics. The company therefore implemented the HP Vertica Analytics Platform. As a result, Spil Games can now capture and leverage the enormous amounts of data generated by the 180 million people that visit its websites every month, which in turn allows the company to drive business innovation and improve its ability to serve compelling gaming experiences to its customers.



Close to forty domains. Fifteen languages. Two billion page views per month.

Spil Games is doing something right. Founded in 2004 by a pair of Dutch entrepreneurs, Spil Games is now one of the top online gaming companies in the world. It offers a range of popular casual and social online gaming experiences that it has published itself.

Until a couple of years ago, however, Spil Games lacked a crucial technology asset: a big data solution. As a result, the company had to rely too much on conjecture to make decisions critical to its business.

That's no longer the case, however, because today Spil Games leverages the HP Vertica Analytics Platform.

## Fast queries—without breaking the budget

“Spil Games has known for some time that it can make more money if it makes better use of data,” notes Rob Winters, Director of Reporting and Analytics, Spil Games. “But first we had to start capturing it, cleaning it, and translating it into information that the company could use.”

Winters was hired by Spil Games to design and implement a customer reference management solution, but over time the position evolved to encompass analytics and, ultimately, big data. The data platform he inherited was PostgreSQL, an open source database management system; as demands on the platform mounted, however, it became clear that the technology wasn't meeting the company's needs. “It would scale, but as we started adding more data, queries took forever to run,” Winters recalls.

Given the volume of Spil Games' website data—the company's sites attract approximately 180 million visitors every month, and every visitor click is a critical data point—it needed a more robust solution. “We wanted a platform that would allow us to analyze multiple terabytes of data in near real time,” says Winters.

So Spil Games began evaluating available options, including HP Vertica, Oracle, Teradata, and Microsoft® SQL Server®.

Several of the solutions did not meet Spil Games' requirements for one reason or another. Then Spil Games performed a

proof of concept on HP Vertica. “HP Vertica's performance was easily two orders of magnitude better than what we were getting out of Postgres,” he says. Winters also liked the solution's user interface. “Even though I'm not a systems guy, I was able to use Vertica myself to simultaneously load data and run queries.”

HP Vertica also fit Spil Games' needs from a budget perspective. “HP Vertica doesn't impose node-based licensing constraints,” Winters notes. This was important because Spil Games knew its consumption of data-related services would grow over time. The HP Vertica pricing model helps ensure the company's future software licensing costs won't spiral out of control.

Spil Games therefore chose HP Vertica as its big data platform, beginning with a 5-terabyte license, and later adding capacity to support 30–60 terabytes of data.

The analytics team integrated the solution with several other tools, including Apache Hadoop for data storage; Tableau software to provide visualization capabilities around business intelligence and analytics; and Pentaho software to facilitate data integration.

## Single, unified view of customer behavior

Once the analytics team stood up the new data warehousing platform, it moved quickly to demonstrate its value. “We wanted the business to know what it was getting for its investment,” Winters said.

So the team built a dashboard designed to give the company's business users a single, unified view of the behavior of its customer base. “All of a sudden, the business could see data like retention and revenue in one place, along with real-time trending,” Winters says. “To this day, it's one of the most popular business intelligence services we provide to the business. And we built it in a single afternoon.”

Spil Games immediately gleaned critical insights from its new business intelligence (BI) dashboard. “For the first time, we could understand which of our site visitors are ‘high value users,’” says Winters. “It immediately changed the conversation about which customers we should target to drive engagement, and how we should target them.”



## Fundamental change to how the business operates

The analytics team was only getting started, however. “One dashboard was great,” he says, “but what we really wanted to do was take the organization on a new journey. We wanted to get the business thinking in terms of data.”

So the team began training Spil Games’ business users in how to leverage data to drive business decisions. It also began designing a rich portfolio of reports to offer to the business. “Before we implemented HP Vertica, the business relied on two reports on website activity,” Winters says. “Within a year of building out our Vertica platform, we were producing 35 different reports.”

The business responded enthusiastically. Today, more than 60% of Spil Games employees use its BI and analytics reports on a weekly or monthly basis. More than 25% of the employees use the reports every day.

“It’s fundamentally changed how Spil Games operates,” says Winters. “The company now always thinks about its products in terms of the underlying business logic.”

Equally significant—and transformative: the company’s business decisions are no longer based on hypothetical information. “For the first time, we know exactly what happens when we change a product,” Winters says. “And our understanding is based on reality, on actual data.” And that understanding is always up-to-date. “Our business intelligence team knows the effects of product enhancements within 15 minutes, because HP Vertica queries return results so quickly.”

## Sites adapt dynamically to visitor behavior

Spil Games’ website functionality now leverages HP Vertica functionality as well: it analyzes visitor behavior in near real-time and then serves site content based on that behavior. “On average, our production sites react to events within 12 and a half minutes,” Winters says. “The software adapts dynamically to what our visitors are doing on our sites.”

This is possible because Vertica is so blazing fast: Spil Games’ Vertica platform can execute database queries across multiple terabytes of data with minimal lag time. The company’s software algorithms can quickly identify what content will appeal to specific site visitors—and serve it to those visitors before they lose interest and leave the site. And that, in turn, improves visitor engagement and customer retention: two key metrics that Spil Games considers critical to its business success.

## Data drives business evolution and opportunities

Another crucial business challenge for Spil Games is maximizing its advertising revenue, and HP Vertica gives Spil Games a competitive advantage in this area as well: because the company can acquire highly accurate and granular information on visitor behavior, it can offer specific, high-value advertising opportunities to companies or brokers that wish to display ads on Spil Games websites.

HP Vertica also enables Spil Games to enhance the services it offers to online game

## Customer at a glance

### Software

- HP Vertica Analytics Platform

developers: the company now offers analytics to developers who choose to host their games on the Spil Games platform. “Developers can leverage our HP Vertica cluster for performance and BI data,” Winters says. “They get more value from partnering with Spil Games, which helps to differentiate our company from other hosting platforms.”

And, as Spil Games continues to leverage its HP Vertica cluster, it will become increasingly sophisticated in how it applies analytics and business intelligence to its business.

“We plan to expand access to our data in the future,” Winters says. “We want to put the raw, gritty stuff into peoples’ hands so that they can dig into it themselves.” Spil Games anticipates that this approach will lead to fresh insights that will drive even more business innovation.

“HP Vertica solves so many of my issues, as a data professional,” Winters concludes. “It’s incredibly fast in terms of query performance. And it’s easy to work with, which greatly simplifies my life. As a big data platform, HP Vertica is worth the investment many times over.”

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