

Supercell

Supercell adopts Vertica Analytics Platform; mobile gaming company leads with creativity supported by data.



Overview

Since Supercell began developing games for tablets in 2011, the Finnish company has had two top-grossing games for the iOS platform, "Clash of Clans" and "Hay Day," both released in 2012. Behind the scenes, Supercell has adopted the Vertica Analytics Platform for real-time gaming data analytics. With Vertica, Supercell has an analytics platform and partner to support its tremendous growth.

Janne Peltola, a data scientist at Supercell, supports the company's marketing team and the CFO. Each game team within the company operates independently and also has its own dedicated data scientist. Peltola explains Supercell's approach to game development, "We focus on creating games that are fun and engaging and will retain players over a long period of time," Peltola says. "If we succeed in making a great game experience, everything else, including the money, will follow. Vertica is an important tool in making sure that our games provide the best possible experience for our players."

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Data Scientist
Supercell

Challenge

Until the spring of 2013, Supercell relied on a patchwork of technologies for data warehousing and business intelligence reporting. According to Peltola, this solution had reached its limits. "To do an A/B test, it might take two to three hours to run a query on each game server and pull the data into the memory of an analyst's desktop computer," Peltola says.

In late spring 2013, Supercell decided to evaluate different options for expanding its analytics capabilities. Supercell had several goals for the evaluation of a data analytics platform, including speed, Extract Transform Load (ETL) capabilities, ease of use, cloud functionality, and maintainability. Peltola explains that the company tested each vendor's offering. Ultimately, Peltola and his colleagues had enlightening conversations with experts who addressed one of Supercell's main concerns: how Vertica would function in the cloud (Amazon Web Services).

"Vertica came along at the right time," Peltola says. "Vertica was mature technology, we liked its columnar data model, the speed of analytics, and we knew it could scale for the next five to ten years."

Supercell appreciated the speed at which the analytics platform could answer questions essential to its business strategy. Following a short trial, the company purchased a 100 terabyte Vertica license.



At a Glance

- **Industry**
Mobile Gaming
- **Location**
Helsinki, Finland
- **Challenge**
Adopt real-time gaming data analytics platform
- **Solution**
Evaluate data analytics solutions, conduct a successful Proof of Concept, and implement Vertica
- **Results**
 - + Queries reduced from two to four hours to minutes or seconds
 - + Solution successfully met cloud deployment requirement
 - + Expanded data capacity from a few months to whole lifetime of data
 - + Analytics improved customer service by augmenting player support

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“We got our Vertica license in August,” Peltola says. “We had the Vertica cluster up and running in no time—a few hours—and with a small team of two or three people, we had Vertica running in production by early October.

“At Supercell, the operative word is fun. As Peltola explains, “Our main business challenge is to figure out what makes people play our games, what makes them fun. We are creative first; then, we use the data to validate those decisions. We have a hypothesis, the game goes live, and we test our hypothesis.”

Supercell has now expanded from the iOS platform to the Android platform, increasing the amount of data it ingests to approximately three to four terabytes of data per day. Yet, with Vertica as a partner, Supercell finds that this volume of data presents not a problem but an opportunity. In the past, the company could only look at some months of data, and now it can consider a whole lifetime of data, analyze all of it, and have instant feedback.

“We use analytics to prove or disprove something we are testing,” Peltola says. “One interesting A/B test Supercell conducted was about Facebook connectivity. The test was designed to look at whether people who liked the games also wanted to encourage their friends to play, and to see how those variables affected player retention. In terms of A/B testing, we now pull the data into Vertica. Something that took two to three hours in the past now takes four minutes.”

Solution

Analytics, enabled by Vertica, also shortens the feedback loop and helps improve customer service. “We can do, for example, large-scale analysis of customer support tickets that come

in daily,” Peltola says. “We store that data in Vertica. We can search for key phrases. For instance, if the Facebook community is talking about Android crashes, we can do text mining to understand and solve the problems. We can supplement the work our player support people do, augmenting their work with analytics. We can react faster and fix problems together at the root.”

Peltola notes that Supercell's analytics platform now can not only answer a lot more questions than was possible in the past, but it can also go deeper, enabling him to have a conversation with the data. “We can give an answer to a question like ‘how are Japanese iPhone players doing?’ and a follow-up question like ‘are Japanese users using both iPads and iPhones?’ will pop up. A conversation with the data would take a week to come to us in the past. Now, we can deepen the data and come to a conclusion almost on the fly, with agility and speed.”

Results

Overall, Supercell is pleased with the Vertica Analytics Platform's speed, reliability, stability and scalability. “Vertica has helped us in ways our previous data analysis tools did not allow,” Peltola says. “In the past, we might wait an hour, maybe it would crash, maybe not. With Vertica, we do a query and what took hours is now completed in minutes or even seconds. Also, reliability is extremely important to us. We spent time ensuring our platform would be robust and fully cloud-capable. We have received great support from Vertica. Judging from our current platform, we are convinced Vertica will continue to scale.”

“I would recommend Vertica,” Peltola concludes. “The capacity and agility are impressive and worth the investment.”



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