

BASHO HELPS BET365 DELIVER A SEAMLESS GAMING EXPERIENCE

CHALLENGE

Founded in 2000, bet365 is one of the world's leading online gambling groups. The company serves over 19 million customers in 200 countries and employs over 2,000 people.

The gaming industry is feeling the effects of the proliferation of mobile technology and the explosion in data volumes. Scaling systems to meet demand has become increasingly complex with customers no longer satisfied with betting on a limited selection of outcomes. Football alone requires constantly updated odds that must be available on everything from next scorer to the number of yellow cards.

To be able to process this number of outcomes, in addition to everything from betting odds and the final action on each account across a variety of sports, gaming companies now require a huge amount of data-processing power. For such companies, momentary loss of availability could cost the business and its customers as odds and bets placed are unable to be updated or processed.

bet365 had reached the point where it could no longer scale its SQL infrastructure without turning to the complexity and cost of sharding.

To achieve and balance the CAP theorem parameters (Consistency, Availability and Partition tolerance), the company needed a system like Riak, one which could ensure availability, with reads and writes always successful, with improved partition tolerance, so that guaranteed segments are maintained, even in the event of network failure.

"As bet365 has grown, it's become clear that our SQL infrastructure would need support to keep up with the huge volume of data we process on a daily basis. We knew we needed a system that was scalable, reliable and most important simple to implement and use." comments Dan Macklin, Head of Research and Development, bet365. "Complexity is the enemy of innovation, and innovation is the key to providing the best service to our customers."

CHALLENGE

Meet growing data demands without compromising performance

SOLUTION

Riak

RESULT

Faster, more reliable data processing ensuring improved customer experience mobile interactive platform.

SOLUTION

bet365 evaluated nine solutions in its search for a suitable platform to accommodate its growth and processing requirements. However, making the move from SQL was not easy. "Migrating from SQL to NoSQL is not trivial." said Macklin. "There are many elements to be taken into consideration.

The criteria for the new solution was decided. Reliability, predictable low latency, scalability, fault tolerance and the ability to scale horizontally all had to be ensured. Following extensive research and evaluation of the nine solutions, bet365 found that Basho's Riak platform was best suited to the company's needs.

bet365 found that Basho's solution was the one most capable of handling the data updates and transaction volumes that the company faced every day. It was also the most stable and reliable solution. Fast enough for bet365's purposes and offering the linear scale that the company required. A key selling points for bet365 was Riak's ability to perform reliably in difficult situations. A strength that has served the platform well in other high-pressure sectors, such as the healthcare industry.

“Migrating from SQL to NoSQL is not trivial.”

- Dan Macklin, Head of Research and Development, bet365

“We saw immediate business and technical benefits following the implementation of Riak. We could meet the daily data loads and ensure a seamless gaming experience for customers. Something you can't put a price on.”

- Dan Macklin, Head of Research and Development, bet365

“We deliberately triggered failures to see how each platform performed. Riak was by far the best. It reacted the fastest with the least amount of effort from us, while not compromising on stability or reliability. This was a major factor in our final selection,” said Macklin.

The simplicity of the implementation came as no surprise. Basho's five minute installation actually takes five minutes and bet365's IT department was able to analyze the source code to see how the platform worked. Bet365 is a customer of Erlang Solutions Ltd, who lead the

RESULTS

The implementation was also a success for the R&D team, who are now able to develop highly scalable applications, with less code and operational complexity than with its SQL counterparts, improving productivity and developer satisfaction. The company has also benefited from its reliability and simplicity to operate, with Riak continuing to work even when networks and servers fail. The predictable low latency and flexibility of Riak has also enabled the company to support Cash Out, a recently available offering that gives customers more control over bets by allowing them to repurpose them in real time, before an event has finished.

By using a platform that could crunch the company's towering peak data volumes, bet365 is able to address its customers' needs by ensuring that

engagement as a reseller partner of Basho, providing key support and making the implementation a smooth one.

Now, bet365's Riak environment uses 32 nodes, with the aim to increase to around 100 by the end of 2015, providing a foundation for the company's active data workloads to achieve best performance and growth. The environment is deployed across multiple datacenters and has around 1 terabyte of working dataset.

odds and in-game updates are available instantly and without incident. The multi channel betting service is now able to handle the peak-data loads which occur during major sporting events, enabling it to provide the same, excellent service regardless of the pressures placed upon the system.

BOTTOM LINE

Macklin believes that the success of Riak is based on three key elements – transparency, research and the engineering. “I can see the passion that's gone into the product. By focusing on a specific problem, Basho has conceived a precision tool that is enabling us to scale our systems with confidence.

ABOUT BASHO

Basho, the creator of the world's most resilient databases, is dedicated to developing disruptive technology that simplifies enterprises' most critical distributed systems data management challenges. Basho has attracted one of the most talented groups of engineers and technical experts ever assembled devoted exclusively to solving some of the most complex distributed systems challenges presented by Big Data and IoT.

Basho's database, Riak® KV, the industry leading distributed NoSQL database, is used by fast growing Web businesses and by one-third of the Fortune 50 to power their critical Web, mobile and social applications. Built on the same foundation, Basho introduced Riak TS, which is the first enterprise-ready NoSQL database specifically optimized to store, query and analyze time series data. Basho also provides Riak integrations for a variety of Big Data technologies like

Apache Spark, Redis, Mesos, and Apache Solr.

For more information visit Basho.com which is full of interesting use cases, customer case studies and product detail, or docs.basho.com for technical documentation.

Basho has a valued Reseller Partnership with Erlang Solutions who create, integrate and offer lifetime support of products and services based on the Erlang ecosystem and other technologies. Their team designs and delivers scalable solutions for end-to-end systems for clients ranging from start-ups to Fortune 100 companies.

Erlang
SOLUTIONS

