

Betfair relies on a stream of innovative new products to maintain its competitive advantage as a leading on-line betting site. To improve the efficiency of its application-development process, the company designed a state-of-the-art environment based on the OpenStack architecture, and selected Pure Storage as its strategic storage partner.

PADDYPOWER. betfair

BUSINESS TRANSFORMATION

By making a wholesale commitment to an OpenStack cloud platform that delivers greatly enhanced efficiency and flexibility for its application-development teams, Betfair has sharply accelerated time-to-market for new products and features in the highly competitive on-line betting industry.

GEO

United Kingdom

INDUSTRY

Gaming

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Andrew Cook, *principal engineer*

BETFAIR CASHES IN ON OPENSTACK CLOUD PLATFORM FEATURING PURE STORAGE

Betfair is one of the leading wagering sites in the United Kingdom, offering a variety of on-line casino and betting products to more than 1 million members. In addition to the UK, it serves customers in Italy, Australia, Bulgaria, South Africa and New Jersey in the United States.

Betfair handles an average of more than 100 million transactions per day, which is more than the number of daily transactions conducted by all of the European stock exchanges combined. In the run-up to the British referendum on leaving the European Union in June 2016, Betfair was handling as many as 3,000 transactions per second. On an average day, its IT systems handle more than 3 billion application programming interface (API) calls.

Online betting is a highly competitive environment, and Betfair has a history of introducing innovative products since its founding in 1999. But maintaining a competitive edge requires a stream of new features and services, which in turn requires an agile application-development environment.

For several years, Betfair developed its applications in a virtualized server environment. But in 2015, it decided to look for an alternative IT infrastructure that offered greater security, scalability and flexibility. Agility is essential to Betfair’s ability to make new features available on multiple platform and devices.

ACCELERATING TIME TO MARKET

Betfair settled on a new development environment based on the OpenStack cloud-computing software platform. After a lengthy evaluation process, Betfair selected Red Hat to oversee creation of its OpenStack environment. “After that, we built a proof-of-concept setting to evaluate other pieces of the infrastructure,” said Andrew Cook, principal engineer for database and storage.

The other core suppliers chosen for the Open Stack deployment were Hewlett Packard Enterprise for servers, Arista and Nuage for networking, and Pure Storage for all-flash storage. “Betfair’s choice of Pure Storage as our strategic supplier was based on the performance, reliability and ease of management that their all-flash arrays delivered for our Exchange betting platform in 2014.”

COMPANY:

Betfair
www.betfair.com,
Paddypowerbetfair.com

USE CASE:

- Development Environment – OpenStack™

CHALLENGES:

- Given the highly competitive environment of on-line betting, Betfair's application-development teams are under significant time-to-market pressure to deliver new products and services.
- Application-development processes must be more efficient to meet time-to-market demands for new products.

IT TRANSFORMATION:

- With an OpenStack environment, new application-development environments can be spun up in minutes rather than weeks.
- New products can be developed, tested and improved in radically less time.
- Storage management is virtually hands-free.

“You don't have to have highly paid engineers to administer it. That is a massive plus for us. With the systems and architecture we have in place, we have no worry about hitting any bottlenecks.”

Andrew Cook, principal engineer

In addition to being impressed by the flash array's ability to handle high-I/O applications and deliver key features such as replication, data-compression and snapshots, Cook and his colleagues appreciated the Pure Storage approach to seamless integration in an OpenStack deployment. “For example, the Pure Storage Cinder driver did everything we wanted it to do. But when we mentioned some other capabilities that might be nice to have, the Pure Storage team started a project through the OpenStack community to add those capabilities to the Cinder standard. This hands-on approach matched our philosophy for how things should be done in an open-source environment.”

FASTER APP DEVELOPMENT, SIMPLIFIED MANAGEMENT

The impact of the OpenStack environment has been dramatic. “We have a small IT team,” Cook said, “so we need to be as efficient as possible. Under the old system, whenever we got a request to support development of a new application, we had to issue a series of tickets — one for servers, one for storage, and so on. It might take six weeks to provision. With OpenStack, we can spin up an environment in minutes, with just a few clicks.”

What that means, Cook added, is that developers can come up with a new idea, and then test it, improve it or discard it in a short amount of time. That leads to better products and much faster time-to-market. “Rapid development means more ideas are evaluated, and the ideas that are brought to market get out there much quicker. That's a big competitive advantage.”

“A big reason that Pure Storage is our strategic storage vendor is the simplicity and streamlined manageability their flash arrays provide,” Cook said. “We outsourced the management of our legacy storage system because it was too complex for a small IT team to handle, and that cost us a lot of money. Pure Storage has a self-service model that is radically simple. You don't have to have highly paid engineers to administer it. That is a massive plus for us.”

In addition, Betfair has found Pure Storage all-flash arrays useful for tasks that aren't directly related to storage. “There was a time when we had a lot of difficulty maintaining the network for our virtualized servers,” Cook recalled. “We had an overly complicated network, and shutting it down for maintenance involved bringing down all our VMs. But even worse, it would take our (legacy) storage array a week to bring all those VMs back up. So we bought a couple of Pure Storage FlashArray™ arrays just for that purpose, and now we can spin up all our VMs in a matter of minutes.”

Betfair's strategy is to move all its virtualized systems onto OpenStack, at which time that environment — which Betfair calls I2 — will be the platform for all of its IT operations.

With business growing at the rate of 10-15% a year for the past several years, the new OpenStack platform “gives us more than enough headroom to accommodate whatever comes along,” Cook noted. “With the systems and architecture we have in place, we have no worry about hitting any bottlenecks.”

More importantly, Cook added, is the confidence that comes from working with a strong team of strategic suppliers. “With the partners we chose for OpenStack, it's all about ‘can we work with these people; can they build what we need in the future; are you going to go on this journey with us?’ And the answer is yes.”



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