USQ AUSTRALIA UNIVERSITY OF SOUTHERN QUEENSLAND

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Scott Sorley, Principal Manager of Infrastructure and Systems, University of Southern Queensland

University of Southern Queensland Boosts Uptime, Speeds Application Migration with F5 Solution

The **University of Southern Queensland** (USQ) is a leading provider of on-campus and distance education programs in Australia. Of its 26,000 students, more than 75 percent study using distance or online programs. As the number of students continued to grow, USQ needed to update its aging data centre to meet student needs.

USQ chose an F5® BIG-IP® solution to provide high availability and better performance for the growing number of web-based applications used by students. Since deploying the solution, USQ's application migration time is shorter, the application environment is simpler and less costly to administer, performance has improved, and uptime is at 99.99 percent.

Business Challenges

USQ is a young, dynamic university located in three thriving regional locations across Southern Queensland, Australia: Toowoomba, Fraser Coast, and Springfield, one of southeast Queensland's fastest growing regional centres near Brisbane. From arts, business, and education, to sciences, engineering, and surveying, the university develops programs and courses that reflect the changing needs of society.

As the student population continues to grow and programmes and courses evolve, USQ needed to replace its aging data centre with a newly designed version that could meet future needs.

"We wanted to build a new data centre from the ground up and were looking for high availability and increased web application performance," says Scott Sorley, Principal Manager of Infrastructure and Systems at USQ.

New versions of software required that several applications become web-based. With the number of web-based applications increasing, USQ needed a robust solution that could support these applications, while ensuring high uptime and security.

"As many of our students are located off campus, a web-based, self-service student

Overview

Industry

Education

Challenges

- Reduce complexity and costs
- Migrate client-based applications to the web
- Maintain high availability to support on-campus and distance learning students
- Meet 99.95 percent uptime requirements

Solution

- BIG-IP® Local Traffic Manager™
- BIG-IP® WebAccelerator™
- BIG-IP® Advanced Client Authentication™ Module

Benefits

- Provided a common platform for simplicity and cost savings
- Scalability and flexibility to migrate applications
- Cut application migration time from weeks to hours
- 99.99% availability

Partner

Bridge Point

BRIDGE POINT "SECURE NETWORKING"

management system makes it easier for them to submit forms and manage their profiles."

Solution

Sorley had heard from his colleagues about F5. Other universities who had similar F5 deployments also strongly recommended the solution.

"Our criteria were performance, availability, and particularly, application-specific tuning, as in the case of our PeopleSoft solution, which is used for human resource, finance, and student management," says Sorley.

At its new Toowoomba data centre, USQ deployed two F5 BIG-IP Local Traffic Manager (LTM) 6400 devices, the BIG-IP WebAccelerator product module, and BIG-IP Advanced Client Authentication feature modules. In addition, it deployed a BIG-IP LTM 3600 device at its disaster recovery centre in Springfield.

The BIG-IP devices are modular and designed with expansion and customisation in mind. The modular approach allows USQ to easily incorporate new functionality and to quickly adapt to changing application and business challenges.

The F5 solution supports a host of functions, including the student management system, identity management system, corporate website, corporate intranet, learning management system, and the human resource management system. It also performs load balancing and SSL offloading for applications such as PeopleSoft, Oracle, Sitecore, and Microsoft Exchange Server and SharePoint.

"The F5 BIG-IP devices, which are core to our network design, support more than 50 servers. They sit in our data centre network core servicing, several zones behind our firewall, as a redundant pair," said Sorley.

> "The coolest thing about the F5 solution is the flexibility in building iRules to suit application issues and scenarios."

Benefits

Since deploying the F5 solution, USQ is enjoying the benefits of a simpler, less costly application environment, higher uptime and availability, and improved performance.

Reduced complexity and cost

According to Sorley, the biggest benefit the F5 products provide is a common platform for all the university's systems. "The BIG-IP devices are flexible and can be modified to suit our applications. We are continually adding new applications behind the boxes, and the ability to develop custom iRules has proven to be a big benefit," says Sorley, who uses iRules® to run web-based legacy applications.

iRules is the F5 event-driven scripting language, which gives the university the capability to directly manipulate and manage IP application traffic. "The coolest thing about the F5 solution is the flexibility in building iRules to suit application issues and scenarios," said Sorley.

He continued, "The ability to introduce new rules to handle new applications in the common solution is a big benefit. It lets us centralise this service, reducing complexity and cost. With the F5 appliances integrated into the network design, the time required for planning and executing the migration of solutions from the old design to the new design has been reduced from weeks to just hours."

Meeting key performance indicators

The F5 solution has performed well, sitting in front of 50 servers in the new Toowoomba data centre. "The F5 solution has helped us meet our key performance indicators (KPIs) such as our target of 99.95 percent availability," says Sorley. "For the last nine months, the solution has exceeded our expectation, with 99.99 percent uptime, excluding scheduled maintenance."

High availability and top performance

The high availability and system reliability the F5 solution provides have helped the university to deliver a great user experience to its 1,400 staff and 26,000 students who access many web-based applications from around the world. SSL offloading has improved back-end performance, while the F5 Advanced Client Authentication module ensures high security.

"Our new content management system (CMS) didn't support our legacy authentication schema, but the flexibility of the F5 Advanced Client Authentication module allowed us to mange this on the load balancers and migrate to our new CMS while maintaining the old structure and minimising client impact," says Sorley.

Excellent support

The F5 solution is easy to use and manage, enabling IT staff to be more productive and freeing them to focus on other strategic tasks. USQ is also pleased with the superior support it receives.

"F5's pre-sales technical support was excellent, and the post-sale support from F5 reseller Bridge Point helped USQ to resolve issues quickly," says Sorley.

Having used the F5 solution since September 2009, Sorley is pleased with his investment and the benefits reaped.

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