

“Fujitsu and Virtue Technologies have given us access to enterprise-class technology and enabled us to implement a bulletproof disaster recovery platform that would normally be way beyond our budget.”

Craig Birtwell
Network and Systems Manager
Priestley College

Priestley College has deployed a Fujitsu server/storage solution across two physically separate buildings to enable disaster recovery, scalability and improved performance.

At a glance

Country: United Kingdom
Industry: Education
Founded: 1979
Employees: 280
Website: www.priestley.ac.uk

Challenge

Priestley College's aging storage platform could no longer cope with the volumes of data required. It wanted to implement a new server/storage solution that would deliver better performance and automated disaster recovery.

Solution

The college's two main server rooms now have a mirrored solution comprising a FUJITSU Storage ETERNUS DX200 connected to two FUJITSU Server PRIMERGY RX2540. Together, these host 35 virtual machines supporting critical applications and services.

Benefit

- Enables optimal availability and avoids hours of downtime by switching between sites at the click of a button
- Increases processing power and memory improving performance and making users more productive
- Simplifies management and relieves the burden on the three-strong IT team

Customer

Priestley College is a sixth form college in Warrington, Cheshire. It offers a range of A-Levels and Vocational qualifications as well as adult courses. A-Level pass rates have been 99% or better for the past 12 years. In 2014 it became the first dedicated sixth form college in the country to receive STEM-assured status – the only national gold standard for Science, Technology, Engineering and Maths. A £1.5million technology centre was recently opened while a further £835,000 was invested in a modern science laboratory and computer network upgrade.

Products and services

- 2 x FUJITSU Storage ETERNUS DX200 with 2 x 400GB SSD + 22 x 1.2TB SAS
- 4 x FUJITSU Server PRIMERGY RX2540



Challenge

With a student body of just under 2,000 pupils and 280-plus faculty members, Priestley College generates huge amounts of data relating to their education. Managing this information securely while ensuring optimal availability is an ongoing challenge. Previously, the college had installed a FUJITSU Storage ETERNUS DX100, however, it was fast running out of capacity. The college needed to find a flexible replacement solution to enable future growth.

“The old storage platform was six years old and, although it had served us well, we were reaching peak capacity and wanted to introduce a new storage system that would future proof us for at least five years,” explains Craig Birtwell, Network and Systems Manager, Priestley College. “We also wanted a solution that could be replicated across both buildings so that if one fails, we can transfer easily and immediately with minimal downtime.”

Priestley College went to tender with a set of key criteria in mind: disaster recovery capability, physical server virtualisation and consolidation as well as cost. Fujitsu partner, Virtue Technologies, won the contract by offering an enterprise-class solution at an affordable cost.

“Virtue Technologies and Fujitsu offered the most cost-effective solution as well as the best technology for our requirements. It also boasted simple management to reduce the burden on my team of three,” adds Birtwell. “Transparent and fair licensing of the cluster-based recovery system added to our enthusiasm; we know as we scale up our storage, the licensing costs will not increase.”

Solution

Both of the College’s main server rooms now have a mirrored Fujitsu storage/server solution comprising a FUJITSU Storage ETERNUS DX200 with 2 x 400GB SSD + 22 x 1.2TB SAS connected to four FUJITSU Server PRIMERGY RX2540. Together, these host around 35 VMware virtual machines supporting critical applications and services, including MS Exchange and SQL as well as finance, HR and specialist educational applications such as Moodle.

“Virtue Technologies installed and configured the new Fujitsu solution over the holiday period so we could gradually migrate the existing data without disrupting the college’s operations,” continues Birtwell. “They partitioned the disks and made the process seamless, requiring few resources from my team.”

The solution is based on a smaller solid-state drive (SSD) which caches commonly accessed data for the controller. This works in tandem with more traditional SAS storage for ultimate scalability and accessibility.

The clustered approach also automates the failover process, meaning no manual intervention is required and uptime is optimised.

“We can switch between the two Fujitsu solutions at the touch of a button, which gives us massive availability even if something should go wrong,” says Birtwell. “Having said that, in the five months that the new storage platform has been in place, we haven’t had a single problem.”

Benefit

This automation and reliability makes for a better user experience and fewer headaches for Birtwell and his team, which in turn makes for more productive students and teachers.

“Previously, if the main controller went down, it would mean hours of downtime, during which teachers and students cannot access critical resources,” remarks Birtwell. “Now it automatically switches so, whatever happens, we can deliver maximum availability.”

The new system not only automates the disaster recovery process, it also delivers better performance, thanks to caching popular data locally on the SSD and a significant increase in memory and processing power with built-in scalability. Moreover, the Fujitsu ETERNUS device performance is further boosted by its consistent low latency and automated quality of service.

“We used to have 128GB of memory in each VMware host server and that has now been boosted to 512GB, along with a considerable increase in the SAN storage capacity, which we can easily expand at any time,” comments Birtwell. “That means better application performance, which means students can access the information they need to succeed more quickly.”

Furthermore, Priestley College is also putting its old Fujitsu storage system to good use, acting as the nightly backup platform. This introduces additional efficiency and value-for-money for the public purse. Overall, the college has been delighted with the results and expects the Fujitsu solution to form the backbone of its infrastructure for many years to come. Thanks to the backwards compatibility of the Fujitsu ETERNUS family, the college is guaranteed to make the most of its investment for longer.

“Fujitsu and Virtue Technologies have given us access to enterprise-class technology and enabled us to implement a bulletproof disaster recovery platform that would normally be way beyond our budget,” concludes Birtwell. “It has also relieved my small team of lots of headaches through simplified management and automation. We are really pleased with the outcome.”

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