College reduces servers by approximately 83 per cent with virtualized solution
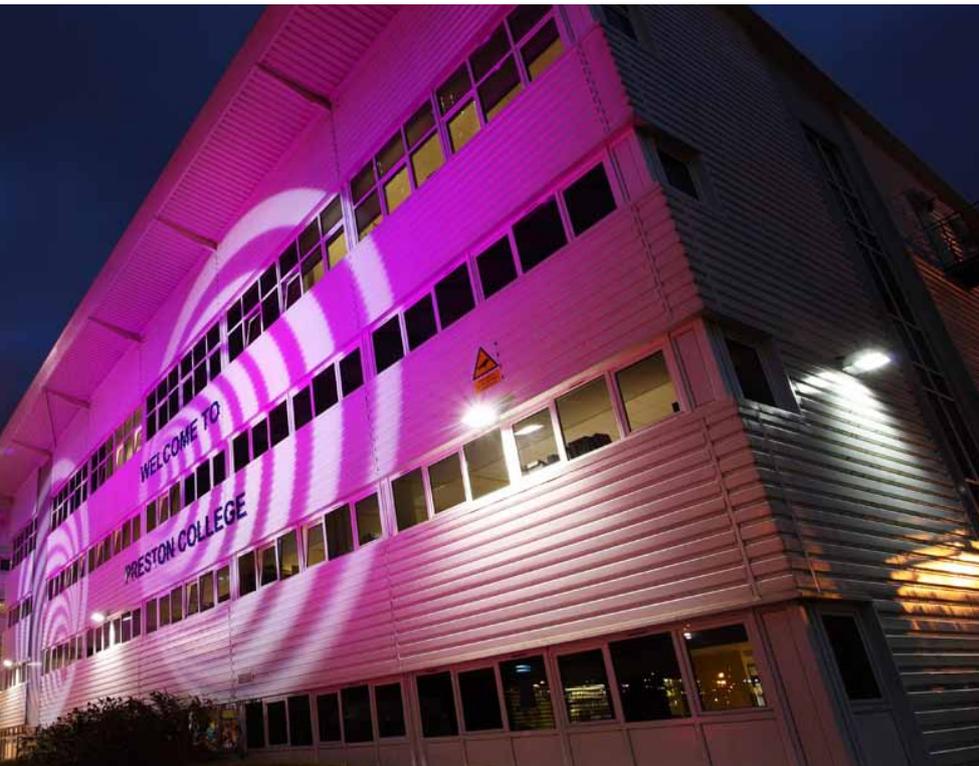
"We have reduced energy consumption by around 37 per cent with our Dell and Intel technology."

John Greenwood, Head of Technical Services, Preston College

Customer profile

Company:	Preston College
Industry:	Higher Education
Country:	United Kingdom
Employees:	18,000 students; 1,000 employees
Website:	www.preston.ac.uk

Business need

To meet an increasing need for IT, Preston College wanted to improve enterprise efficiency. It aimed to centralise storage and virtualize servers, reducing management time and power use.

Solution

Working with Dell Enterprise Architecture Certified Partner Nviron, it deployed Dell EqualLogic storage and virtualized Dell™ PowerEdge™ servers. It ensured maximum performance with Dell ProSupport.

Benefits

- College reduces servers by around 83 per cent with virtualized solution
- Power use cut by around 37 per cent with Dell and Intel
- IT personnel focus on strategy with enterprise-efficient storage
- Customer gains storage to meet multiple requirements
- IT team maximises performance with responsive support

Preston College in Lancashire is a thriving centre of higher education, and its students regularly go on to study at some of the UK's leading universities. It offers a wide range of A-level and vocational courses, providing a popular entry point for adults looking to return to education.

> "We have consolidated our server infrastructure by around 83 per cent as a result of our Dell solution from Nviron."
>
> *John Greenwood, Head of Technical Services, Preston College*

The college has continuously invested in IT as part of a strategy to digitise classrooms and create more engaging learning environments. While this strategy has helped the students achieve great results, it has also created a number of challenges for the college's IT department. Of those challenges, the most pressing were management complexity and server sprawl. John Greenwood, Head of Technical Services at Preston College, says: "We held data on servers because we had no centralised storage system. It became time consuming to manage the data as more servers were added to the infrastructure." Server expansion also had a knock-on effect for power use. "Energy consumption increased, raising our overheads and hindering any efforts to reduce our carbon footprint," he says.

Customer finds easy-to-use centralised storage solution

To increase efficiency and create a more scalable environment, the IT team wanted to centralise storage and virtualize the infrastructure. While reviewing potential solutions, IT personnel attended a seminar on Dell EqualLogic storage area network (SAN) technology, organised by Dell Enterprise Architecture Partner Nviron. Greenwood says: "My first thoughts on Dell EqualLogic storage were about its simplicity. We could manage the SAN day-to-day with very little training." He was also impressed by its tight integration with all the leading virtualization technologies. "It was clear that we could put the SAN at the heart of a VMware-based infrastructure," he says.

Expert support helps college deliver its goals

The college engaged with Nviron to help design and implement a virtualized environment featuring Dell EqualLogic technology. Greenwood says: "We chose Nviron because we valued its Dell expertise and commitment to the project. We liked Nviron's approach, particularly the regular customer seminars, and its efforts to understand our needs." Nviron made a number of visits to the college to assess the infrastructure and install a Dell EqualLogic SAN for the IT team to trial. "The more access we got to Dell EqualLogic technology, the more it seemed to be the right choice for Preston College," says Greenwood. "It included all the management software we needed for a single price."

Technology at work

Services

Dell ProSupport
– Mission Critical option

Hardware

Dell™ PowerEdge™ R610 servers with Intel® Xeon® processors 5520 series

Dell EqualLogic PS4000/PS5000/PS6000 storage area networks

Software

VMware® vSphere™ server software

College deploys solution without disruption

Greenwood and his colleagues then worked with Nviron on a number of separate engagements to roll out Dell EqualLogic SANs and consolidate the infrastructure using virtualized Dell™ PowerEdge™ servers. Greenwood says: "We wanted to take our time over implementation to ensure we avoided disruption to students and teachers." The approach has been successful, and now the IT team does much of the deployment work. "We've developed our own expertise in Dell EqualLogic SANs and virtualised Dell PowerEdge servers thanks to the work Nviron did in transferring knowledge to the IT team during each engagement," says Greenwood.

IT team can focus on strategy with enterprise-efficient storage

The college has simplified its storage as a result of its Dell EqualLogic SAN – enabling IT personnel to focus on strategic work. The team can manage the SANs through a single, intuitive interface that allows staff to change storage configurations on-the-fly to meet demand. Expansion is seamless, and, using the solution's roles-based access, the college helps ensure that security is tight. Greenwood says: "We can now dedicate more time to higher value projects, ensuring the IT infrastructure continues to meet the needs of the college."

College gains storage to meet multiple requirements

Greenwood and his colleagues fulfil a mixture of storage needs with the range of Dell EqualLogic SANs in the datacentre. The team delivers the right level of performance for its business-critical applications as well as for its data backup and disaster recovery (DR) processes. "Dell EqualLogic offered us the flexibility to satisfy all of our storage requirements," says Greenwood. "We were able to implement a very cost-effective system."

The college has deployed a number of SANs, including Dell EqualLogic PS4000, PS5000 and PS6000. Using the Auto-Replication software, which is included with each Dell EqualLogic SAN, the IT team replicates data from the production to the DR environment over a standard IP network. "The software included with Dell EqualLogic is a major advantage. We've delivered enterprise-class DR without the expense of additional software licences," says Greenwood.

College consolidates IT by around 83 per cent with virtualized solution

Preston College has significantly reduced its server infrastructure with Dell. The college has replaced 60 servers with nine virtualized Dell PowerEdge R610 servers with Intel® Xeon® processors 5520 series, running VMware® vSphere™ server software. "We have consolidated our server infrastructure by around 83 per cent as a result of our Dell solution from Nviron," says Greenwood. The servers support a wide range of virtualized applications, including Microsoft® Exchange Server. Greenwood says: "We can maintain high availability more easily with our virtualized solution from Dell. If there's a problem with one of the physical machines, we can move its virtual servers to another one of the hosts in minutes. Disruption is minimal."

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IT cuts energy use by around 37 per cent with Dell and Intel

By consolidating the infrastructure and choosing servers with Intel processors, the IT team has significantly lowered energy consumption. There are far fewer servers in the datacentre, plus the Dell PowerEdge R610s are built using Energy Smart components and feature Intel technology, which delivers greater processing using less power. Greenwood says: "We have reduced energy consumption by around 37 per cent with our Dell and Intel technology. As a result, we can align IT more closely with the overall goal of reducing our carbon footprint."

Responsive support helps maximise performance

The college optimises the performance of its Dell solution by working with Nviron and Dell ProSupport. Day-to-day, the IT team works with Nviron for assistance on the servers and the storage, but has Dell ProSupport Mission Critical option with four-hour onsite response for added protection. "Nviron is very supportive. Plus, we speak regularly about IT performance and Dell products and services coming to market," says Greenwood. The college found Dell ProSupport responsive, following up each engagement with requests for feedback. Greenwood says: "I like the fact that Dell ProSupport wants to hear the opinions of customers. It shows a high level of commitment. Our feedback on the service and support is always extremely positive."

About Nviron

Nviron, based in Runcorn, Cheshire, provides a wide range of IT solutions to the UK's private and public sectors. With more than 20 years' experience, the company has achieved success by focusing on customer service and understanding how new technology can help customers drive growth and increase efficiency.

For more information go to:
dell.com/casestudies/emea
and dell.co.uk

View all Dell case studies at: dell.com/casestudies