

VIRTUALIZATION SIMPLIFIES ICT SERVICES

Dutch college deploys high performance virtualized server system to support ICT strategy



Vechtdal College is a Christian comprehensive school for lower secondary vocational education (VMBO), higher general secondary education (HAVO), and pre-university education (VWO). Based in Hardenberg, it also has teaching facilities in Dedemsvaart and Ommen. The college has 3,300 students and 375 staff.

SOLUTIONS:

- CONSOLIDATION
- VIRTUALIZATION



CUSTOMER PROFILE

COMPANY: Vechtdal College

INDUSTRY: Education

COUNTRY: Netherlands

EMPLOYEES: 375

WEBSITE: www.vechtdalcollege.nl

CHALLENGE

Vechtdal College in the Netherlands is committed to the provision of comprehensive ICT facilities and resources for its 3,300 students and 375 teaching staff. The system has grown rapidly, resulting in a variety of desktop and notebook brands. The IT department found the computer fleet and datacentre increasingly time consuming and expensive to maintain.

SOLUTION

The college decided to standardise its computer fleet with Dell™ Optiplex™ GX620, 745 and 755 desktops and Dell Latitude™ D610, D520 and D530 notebooks and consolidate its datacentre with one supplier. Vechtdal College now has a virtualized server system and the servers fully benefit from using VMware® Infrastructure 3.5 software for datacentre management and optimisation.

BENEFITS

- The virtualized servers simplify administration for the IT team
- The server environment is flexible and scalable
- The system is more energy efficient, which promotes cost savings



IT plays a central role in the school's philosophy. Its strategic policy document states that: "ICT forms an integral and stimulating part of the student's educational learning process". And, the school's management has created



the facilities and budget to make the philosophy a reality. Vechtdal College has a number of computer rooms and notebook carts, as well as two open learning centres where students can work on their assignments at fixed workstations, or use notebooks with wireless connections. This ensures that students make good use of the TeleTOP electronic learning environment, which gives them access to study guides, lesson material and tests. In addition, more than 400 educational software packages are available via the school's LAN network. The school also has a modern hardware room, a full coverage Wi-Fi network, and fibre optic links between the three sites and to the Internet.

Up until a few years ago, the school used varied server and PC environments. This meant that the IT department spent a lot of time on system maintenance and updates, particularly because there were different images for each type of hardware. To cope with an increasing number of PCs and applications, the IT department formulated three basic principles: standardisation, centralisation, and virtualization.

The school decided to standardise the desktops and notebooks with one leading brand, and invited five suppliers to submit a proposal.

“DELL STOOD OUT WITH ITS **VERY GOOD PRICE AND PERFORMANCE SCORE**, AND IS ALSO VERY WELL-ESTABLISHED IN THE EDUCATION SECTOR”

Jan Cees Rutgers, head of ICT, Vechtdal College

The two main proposal criteria were:

- System architecture had to be stable over a long period, so that the number of images in a year could remain limited to one for the notebooks and one for the desktops. The aim was to minimise the time spent on maintenance.
- Notebooks had to be able to work with two batteries to achieve acceptable cordless working times.

Vechtdal College specifically chose Dell over other suppliers because it was the best positioned to meet the school's tough schedule of requirements, explains Jan Cees Rutgers, head of ICT, Vechtdal College. "Dell stood out with its very good price and performance score, and is also very well established in the education sector. Dell has a special

education desk in the Netherlands, which offers excellent expertise and experience, and delivers exceptional service. We were given a dedicated contact person straightaway, who is reached easily when we need him. That is very important to us and is the basis of our trust in Dell."

Now, more than three quarters of the 800 PCs at Vechtdal College are Dell systems, with a combination of Dell™ Optiplex™ GX620, 745 and 755 desktops and Dell Latitude™ D610, D520 and D530 notebooks. In order to fulfil the requirements relating to centralisation and virtualization, the school decided to consolidate its servers and storage, again choosing Dell. This included four Dell PowerEdge 2900 servers, each with two quad core processors, on which multiple virtual machines can be configured with the aid of VMware virtualization software.

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 2900 servers
- Dell | EMC CX3-20 SAN
- Intel® Xeon E5320 Quad core processors
- Dell PowerVault™ ML6000 tape library
- Dell Optiplex™ GX620 desktops
- Dell Optiplex 745 desktops
- Dell Optiplex 755 desktops
- Dell Latitude™ D610 notebooks
- Dell Latitude D520 notebooks
- Dell Latitude D530 notebooks

SOFTWARE

- VMware® Infrastructure 3.5 software for datacentre management and optimisation

These servers are lined to a redundant Dell | EMC2 CX3-20 SAN solution with two Fibre Channel switches.

STANDARDISED DESKTOPS AND NOTEBOOKS SAVE TIME AND COSTS

By standardizing on Dell, the time that Rutger and his team spend on maintenance has dropped significantly. Dell™ Latitude™ notebooks and Optiplex™ desktops have long lifecycles. That is, they remain available to order for longer than many comparable products from other vendors. In addition, images can be valid for over a year and, depending on the system, even up to 15-18 months.

VIRTUALIZATION DELIVERS FLEXIBILITY WITH HIGH RETURN ON INVESTMENT™

The school's network now includes four Dell PowerEdge™ 2900 servers, each with two quad core processors, on which multiple virtual machines can be configured with the aid of VMware® virtualization software. The benefits of this are high availability, ease of management and greater scalability. New servers are also very easy to configure – for example, for testing without disruptions the need to buy in additional computing power. “We can have a new virtualized server operational within half an hour,” says Rutgers. “That means Vechtdal College can obtain the

maximum return on our server investments and make substantial savings on management, cooling and power consumption.”

DELL'S COMPREHENSIVE SOLUTIONS PORTFOLIO DELIVERS GREAT VALUE

In addition to offering a solid solution to meet the three basic principles formulated by Vechtdal College - standardisation, centralisation, and virtualization, Dell also offered high levels of availability and scalability for server storage and backup facilities. Rutgers also decided to purchase Dell printers to further standardise the technology used at the college. “Dell offers a complete range of solutions, from notebooks, PCs and printers through to servers, storage and services,” says Rutgers. “And now we are making full use of the range. That certainly was not a requirement or selection criterion back when we were looking for a PC supplier, but Dell clearly offers us added value by providing an end-to-end solution, not just a response to our initial hardware needs.”

**For other case studies please visit
www.dell.com/casestudies/emea or
www.dell.nl**



SIMPLIFY YOUR TOTAL SOLUTION AT DELL.COM/Simplify



© 2008 Dell Corporation Limited. Dell the Dell logo, PowerEdge, PowerVault, OptiPlex and Latitude are either registered or unregistered trademarks of Dell Inc. Trademarks or trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell disclaims proprietary interest in the marks and names of others.