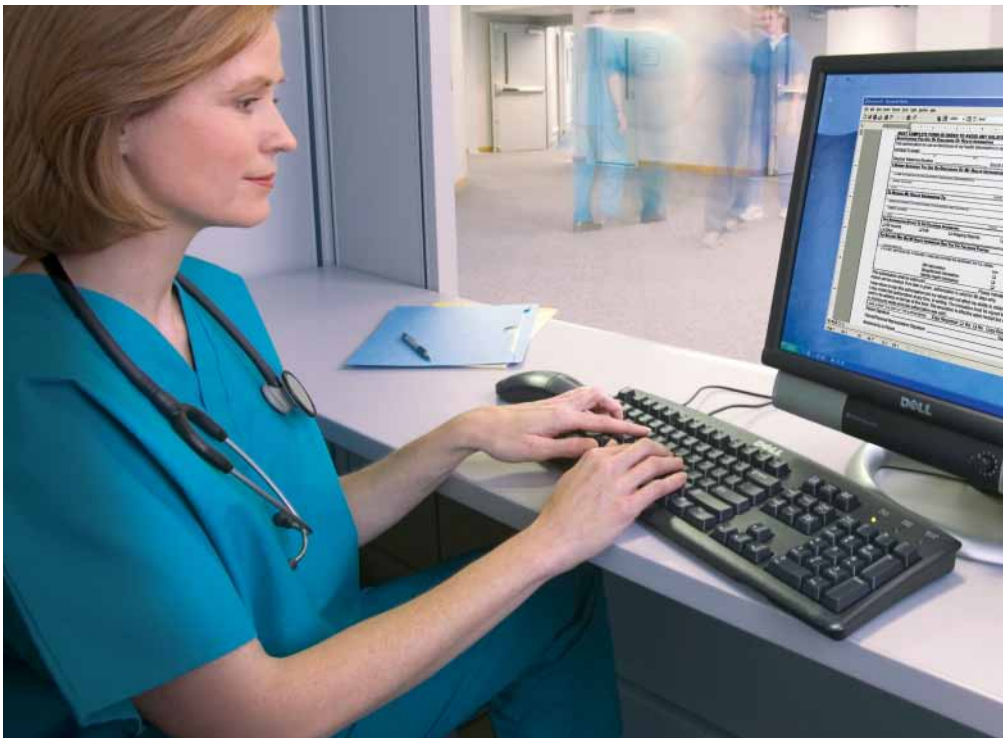


HEALTHIER MANAGEMENT

Simplified blade environment cuts server management time by approximately 25 per cent at Dutch hospital



Hospitals worldwide are digitising their paper-based patient-care systems to help improve the delivery of healthcare. Particularly for those continuing to invest in business software, this programme of digitisation poses some interesting challenges. Firstly, how to deliver all this technology without generating a prohibitive energy bill? And, secondly, how to support these systems without having to employ an army of IT personnel?

SOLUTIONS:

- DATA CONSOLIDATION AND MANAGEMENT
- GREEN IT
- VIRTUALIZATION



CUSTOMER PROFILE

COMPANY: Ziekenhuis Rivierland
INDUSTRY: Healthcare
COUNTRY: Netherlands
FOUNDED: 1965
EMPLOYEES: 1,200
WEBSITE: www.zrt.nl

CHALLENGE

The existing server platform at the hospital could not support a new electronic patient-care system and an upgrade to Windows Server® 2003 and Microsoft® Exchange Server 2003.

SOLUTION

The hospital implemented a Dell blade server environment complete with the latest Dell modular blade enclosure, backed by Dell ProSupport for IT.

BENEFITS

Get IT Faster

- Two modular blade enclosures arrive in one week
- IT team deploy enclosures and blades in a single day
- Ordered blade fan arrives in two hours
- Virtualized servers are almost 90 per cent quicker to implement than physical machines

Run IT Better

- Simplified IT from Dell takes approximately 25 per cent less time to manage
- Low-energy consuming servers help deliver green agenda

Grow IT Smarter

- Modular blade enclosure design supports growth better



Ziekenhuis Rivierland, based in the Netherlands, is one such hospital digitising the majority of its paper-based patient-care systems. The hospital, which has 373 beds, specialises in a wide range of healthcare services. Its patients have come to expect a high quality of medical attention to be available 24 hours a day, 7 days a week. With this in mind, the hospital continues to look at ways to improve services and treatments.

Recently, the organisation bought a workflow solution from Siemens, called Soarian, which will manage patient records electronically, reducing the chances of miscommunication between healthcare workers and inefficiencies such as multiple data entry.

At the same time as implementing the patient-care system, Ziekenhuis Rivierland planned to upgrade the main environment to Windows Server® 2003 and move email to Microsoft® Exchange Server 2003. With these two major developments going ahead, the hospital had to upgrade its existing server platform to deliver more processing power. The problem was any new machines had to be energy efficient and simple to manage if they were to cope with the tight restriction on electricity supply at the hospital and the limited manpower of the IT team.

The hospital sent out a request for a proposal to leading IT solution providers, including Dell, for server technology that could meet its requirements. Dell visited Jan Dennis de Graaff, ICT project manager at Ziekenhuis Rivierland, to explain the advantages of the Dell™ PowerEdge™ M600 blades with Intel® Xeon® Processors.



“VIRTUALIZED SERVERS ARE ALMOST 90 PER CENT QUICKER TO IMPLEMENT THAN PHYSICAL MACHINES, SO WE WANT OUR DELL M600 POWEREDGE BLADES RUNNING VIRTUALIZATION SOFTWARE AS SOON AS POSSIBLE.”

Jan Dennis de Graaff, ICT project manager, Ziekenhuis Rivierland

HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ M600 blades with Intel® Xeon® Processors
- Dell PowerEdge M1000e modular blade enclosures

SOFTWARE

- Siemens Soarian
- Windows Server® 2003
- Microsoft® Exchange Server 2003

SERVICES

- Dell ProSupport for IT
 - Mission Critical option

The big advantage of these servers was that they delivered high-powered computing from a small server footprint and were some of the most flexible and energy-efficient blades on the market. What's more, they offered great support for the hospital's existing VMware® virtualization technology.

De Graaff says: "We deployed Dell desktops and laptops in the past so we knew that Dell technology offered great performance and reliability. The Dell PowerEdge M600 blades offered us the efficiency, compactness and virtualization performance we wanted, plus they came with Intel Xeon Processors, on which we had standardised our whole IT environment."

Based on an assessment and design by de Graaff and his team, Dell provided Ziekenhuis Rivierland with six Dell PowerEdge M600 blades and a Dell PowerEdge M1000e blade enclosure for a demo. The IT team then implemented the blades and enclosure themselves. Says de Graaff: "The M600 blades in the M1000e worked well, so we bought the demo and within a short period of time we had five chassis across the two datacentres and around 61 blade servers in operation."



“THE DELL POWEREDGE M600 BLADES AND POWEREDGE M1000E ENCLOSURES ARE HELPING DELIVER GREENER IT AT ZIEKENHUIS RIVIERENLAND. THE BLADES AND ENCLOSURES COMBINATION CONSUMES A LOT LESS POWER THAN PREVIOUS SERVERS’ ENVIRONMENTS AND WE WILL SEE THE SAVINGS OVER TIME.”

Jan Dennis de Graaff, ICT project manager, Ziekenhuis Rivierenland

EXCELLENT VIRTUALIZATION PERFORMANCE

Twenty-three of the 61 blades are supporting the electronic patient records system and delivering email and other business applications. De Graaff comments: “We have been using virtualization technology for some years now, so it is a familiar part of our IT infrastructure. Ziekenhuis Rivierenland has seen that Dell is simplifying virtualization by streamlining deployment and creating easy-to-manage virtual infrastructures.”

The M600 server is Dell’s most energy-efficient blade solution, delivering outstanding virtualization performance in a 2-socket blade server. Each server includes Intel Xeon processing technology, helping boost application performance and easing operational complexity. Dell also configures the blades in the factory to make deploying virtualization software simpler. All together, it ensures that Ziekenhuis Rivierenland can take full advantage of the increased speed of deployment from virtualization technology right after the blades are installed. Says de Graaff: “Virtualized servers are almost 90 per cent quicker to implement than physical machines, so we want our Dell M600 PowerEdge blades to be running virtualization software as soon as possible.”

MANAGEMENT TIME REDUCED BY A QUARTER

Controlling the blade servers is much easier than controlling standard rack servers. De Graaff says: “Ziekenhuis Rivierenland has reduced server management time by approximately 25 per cent thanks to the simplified management solutions that come with the PowerEdge M600 blades and PowerEdge M1000e modular blade enclosures.”

This reduction in time is largely due to the integrated Dell Remote Access card (iDRAC) that comes with each blade. This feature enables status and inventory reporting, and troubleshooting. Using the chassis management controller (CMC) in the M1000e enclosure, IT administrators have a LCD display to manage all the servers’ iDRACs centrally. The CMC also routes traffic to the iDRACs on its servers through a private, internal network. This is outside the server’s data path and outside the operating system’s control.

LOWER ENERGY CONSUMPTION SUPPORTS EXCELLENT PATIENT CARE

New healthcare technology such as imaging machines, which visualise the structure and functioning of the body, are in demand at hospitals such as Ziekenhuis Rivierenland. Still, because energy consumption has an environmental cost, hospital executives set limits on the power each department can consume. By putting M600 blades and M1000e enclosure technology at the heart of its

datacentre, the IT department is delivering its patient-care system and upgraded Microsoft environment without exceeding its electricity quota – avoiding criticisms from other departments and delivering the hospital’s goal of minimal environmental impact.

Says de Graaff: “The Dell PowerEdge M600 blades and PowerEdge M1000e enclosures are helping deliver greener IT at Ziekenhuis Rivierenland. The blades and enclosures combination consumes a lot less power than previous servers’ environments and we will see the savings over time.”

DELL SOLUTIONS ARRIVE FAST, IMPROVING IT AGILITY

Each time Ziekenhuis Rivierenland has extended the M600 blade environment, Dell has been able to deliver the servers and enclosures fast. “Because of Dell’s streamlined delivery model, I ordered two M1000e enclosures and they were delivered in one week,” says de Graaff. The benefit of this speed is IT agility, so the hospital can respond quicker to departments’ IT demands.

Besides being quick to arrive, the technology is also quick to implement, according to the IT manager: “We were able to deploy a Dell M1000e enclosure with blades and switches in just one day. And we’ve never had any problems with it.” The environment is scalable due to the modular designs of the blade and the enclosure. “Due to its small footprint, there is still room in our existing server racks to deploy three more enclosures,” adds de Graaff.

“DELL PROSUPPORT FOR IT HAS BEEN INCREDIBLY RESPONSIVE AND JUST GETS BETTER AND BETTER. FOR INSTANCE, WE ORDERED A BLADE SERVER FAN AND IT ARRIVED IN JUST TWO HOURS.”

Jan Dennis de Graaff, ICT project manager, Ziekenhuis Rivierenland

**FAST SUPPORT ENSURES
MAXIMUM PERFORMANCE**

The blades and enclosure are supported by Dell ProSupport for IT Mission Critical option with four-hour on-site response. De Graaff says it's the best support he has received from Dell in all the time he has been buying the products. "Dell ProSupport for IT has been incredibly responsive and just gets better and better. For instance, we ordered a blade server fan and it arrived in just two hours," he says.

The IT manager is confident that he is receiving the right level of support to ensure the blade environment continues to deliver optimal performance. With the Mission Critical service, Ziekenhuis Rivierenland

gets the support of Dell's simulation labs and scheduled updates during any process to resolve an issue.

For more information on this case study or to read additional case studies, go to www.dell.com/casestudies and www.dell.nl

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