

Case Study

AZ Turnhout

» Fujitsu was absolutely critical to the successful design and deployment of the NetApp MetroCluster and will continue to play a key role in future developments «

Filip Goyens, IT Manager, AZ Turnhout



The customer

AZ (Algemeen Ziekenhuis) Turnhout was created in 2009 by the merger of the St. Elizabeth and St. Jozef hospitals to become the principal care provider for Belgium's Turnhout region. It uses its scale to provide a full range of care to each of the 260,000 patients it treats annually. Its objective is to ensure that quality care is accessible and affordable for everyone.

The challenge

Merging two hospitals into one unified organisation presents a multitude of challenges, not least how best to integrate the technical infrastructure. The priority was to bring both sites to the same networking standard, followed by implementing virtualised servers and improved storage capability.

"The first step was to modify and integrate the network environment. Once that was done, we could look at the servers and storage," explains Filip Goyens, IT Manager, AZ Turnhout. "We decided to deploy a MetroCluster to create redundancy in a failover scenario."

The hospital also encountered challenges specific to individual departments. The radiology department brought all the existing high resolution images together into one storage environment. However, the system was not ready to cope with such a volume of data and the radiologists found it was slow and ineffective, depending on which site they accessed it from.

"Merging that amount of images was a major exercise and it presented significant issues with performance," adds Goyens. "Although one campus could bring up the images within a few seconds, the other was taking over 15 seconds to perform the same task. When you are working in a time-sensitive environment such as clinical care, it is simply not good enough."

As a long-standing Fujitsu customer, the hospital asked for its advice on how to improve the system performance and optimise the storage platform.

THE CUSTOMER

Country: Belgium
 Industry: Healthcare
 Founded: 2009
 Employees: 1,800
 Website: www.azturnhout.be



THE CHALLENGE

Created through the merger of two separate hospitals, AZ Turnhout needed to integrate the disparate IT systems and infrastructures into one cohesive and reliable platform. It also needed to improve the availability of medical images to the radiology department.

THE SOLUTION

The new hospital worked with long time supplier Fujitsu to design and deploy a storage MetroCluster based on NetApp hardware, while virtualising 95% of the server estate.

THE BENEFIT

- Synchronous mirroring across two sites using NetApp MetroCluster technology
- A data center in each site, coupled with the MetroCluster, provides enhanced disaster recovery capability
- Virtualising the server infrastructure has reduced the number of physical servers needed from over 140 to just 15, reducing costs and simplifying management
- The radiology department at both sites can now easily access high resolution medical images within a few seconds rather than 15 seconds
- Fujitsu performs regular checks, has a team on standby 24/7 and guarantees a reaction time within four hours

The solution

AZ Turnhout had several meetings with Fujitsu to define its needs and identify the best solution to meet those requirements. Fujitsu then deployed a NetApp MetroCluster and the Agfa imaging platform. By changing the behaviour of the existing database, it was modified to cope more effectively with the vast amounts of data involved.

"We now have two identical NetApp FAS3240 systems – one for each site – which provides disaster recovery in the event that one fails," continues Goyens. *"We didn't have the technical expertise in-house to handle this project so we relied very heavily on Fujitsu's experts. They had the experience of our organisation as well as a good knowledge of NetApp so it really was the perfect match."*

In addition, Fujitsu also helped virtualise the server environment using VMware. By virtualising 95% of the server estate, Fujitsu has reduced the number of physical servers from over 140 to just 15.

The benefit

The single biggest benefit for Goyens and his team in the new environment is its stability and reliability. With a virtualised data centre in each site, coupled with the NetApp MetroCluster, there is now no need for local backup and if something goes wrong at one location, the other data center can easily pick up the slack until the issue is resolved.

"If a specific server or application goes down, we can easily switch it out to the other site within minutes," comments Goyens. *"Given the critical nature of the work we perform here, that could help prevent a life or death scenario occurring."*

Cost was also a key consideration for the organisation and, although the Fujitsu NetApp solution was initially more expensive than alternative routes, Goyens is confident it will save money in the long term: *"Compared to deploying two separate systems in each site, this represents value for money and, thanks to simplified management and a reduction in physical server numbers, it will be easier to support."*

The entire solution is maintained under a Managed Services contract with Fujitsu, which performs monthly environment checks and a more thorough inspection on a quarterly basis. Should an issue arise, Fujitsu has a team on standby 24/7 and guarantees a reaction time of four hours. The ability to remotely access the system also allows Fujitsu to resolve incidents quickly and easily.

"Fujitsu provides a rapid response to any issue which gives us peace of mind. Having said that, since the new platform went live six months ago, we have yet to experience any downtime," says Goyens. *"That shows just how reliable and stable the infrastructure is."*

From a user perspective, the migration has been seamless with few noticing that there is actually a different solution underpinning the IT services. Only the radiologists have been aware of the changes because they can now access the images they need much more quickly.

The next step in the transition is to archive and back-up the past five years data for longer term storage on another system. This will free up space in the MetroCluster, allowing the hospital to continue to grow and offer new services.

"This solution really future proofs our organisation, giving us the confidence that we can perform to the highest levels without worrying about downtime, Fujitsu was absolutely critical to the successful design and deployment of the MetroCluster and will continue to play a key role in future developments."

About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.5 trillion yen (US\$54 billion) for the fiscal year ended March 31, 2012. For more information, please see www.fujitsu.com

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