



“On the technical side, the transparent failover solution and automatic storage tiering feature for optimized storage utilization really impressed us. It was also important that any new system we installed would be able to grow with our requirements.”

Reimar Engelhardt
Head of IT
Stiftung Hospital zum Heiligen Geist

Stiftung Hospital zum Heiligen Geist uses FUJITSU Storage ETERNUS DX systems to create a high performing, reliable storage infrastructure.

At a glance

Country: Germany
Industry: Healthcare
Founded: 1267
Employees: 2,700
Website: www.stiftung-hospital-zum-heiligen-geist.de/

Challenge

The existing storage infrastructure which the foundation and its companies were using could not be upgraded any further. Maintenance and expansions had become expensive. In the event of a disaster, the IT team would have to intervene manually to make various applications and storage systems available again.

Solution

Purchased a completely new storage infrastructure based on FUJITSU Storage ETERNUS DX500 systems with automatic transparent failover, storage tiering and quality of service levels.

Benefit

- Automatic cost and performance-optimized allocation of storage resources
- Automated failover solution compatible with third party systems
- Scalability within the model series and expandability within the model family



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Customer

Stiftung Hospital zum Heiligen Geist is a non-profit foundation based in Frankfurt, which covers several different hospitals and healthcare facilities in the region. One of these, the Krankenhaus Nordwest hospital in Frankfurt am Main, provides specialist care for the Frankfurt Rhine-Main region with 582 beds across ten clinics and four institutes. The hospital also houses the clinical research base for the University Cancer Center in Frankfurt (UCT), which is certified by the Deutsche Krebshilfe cancer charity. Its oncological center is also an institute of national importance certified by the German Cancer Society.

Products and services

- FUJITSU Storage ETERNUS DX500 S3, each with two controllers, 64 GB cache, 16 x 16 GB FC Ports, 126 terabytes of usable capacity with 528 SSD, SAS and NL-SAS drives in energy-efficient 2.5 inch formats
- 2 x FUJITSU Storage ETERNUS clusters
- Automated storage tiering
- Synchronous data mirroring and storage cluster with transparent failover

Challenge

Contracts for the existing storage infrastructure at Stiftung Hospital zum Heiligen Geist were coming to an end, and managers felt that continuing to use it would be more expensive than migrating to a new platform. "We wanted to keep things running economically," says the foundation's Head of IT, Reimar Engelhardt. The installed storage capacity was no longer coping with increasing requirements. Modern features such as automated transparent failover to maintain operations in the event of a storage system failure, and optimized utilization of the storage infrastructure through automatic tiering, were also impossible with the existing system.

Solution

For Engelhardt, there were three key reasons behind the decision to move to Fujitsu. "On the technical side, the transparent failover solution and automatic storage tiering solution really impressed us. It was also important that any new system we installed would be able to grow with our requirements." This is now possible with the two ETERNUS DX500 systems within the ETERNUS storage cluster. If, in the medium-term, the level of expandability proves to be insufficient, the foundation can scale the system up whilst remaining on the ETERNUS platform simply by replacing controllers, without having to migrate data. Engelhardt adds that the solution was also reasonably priced.

It was clear to Engelhardt that the new system would offer better performance than its predecessor as it would use SSD storage rather than SAS and nearline drives. "We carried out a test during the implementation and found that the processing speed was four times faster," adds David James, who is responsible for the storage infrastructure and Head of the IT-Infra-Sys team at the foundation.

One of the many areas in which users can really see this performance boost is in compiling diagnoses. "The system's reaction times are far faster, which has led to increased user satisfaction," says Engelhardt. When it comes to diagnosing patients, users need to be able to work with the IT system quickly and without delays to provide good quality of service.

Until it was installed, there was no automatic failover option available, meaning that trained staff had to be on call 24 hours a day, seven days a week. Now the IT team can rely on the automatic failover solution to activate in the event of an emergency and minimize the risk of downtime.

Another reason behind the foundation's decision in favor of Fujitsu was the technically optimized storage tiering solution. "It balances cost and performance to determine which of the three storage types, SSD, SAS and nearline SAS should be used, but it is not a black box. Depending on our requirements, we can have high performing applications running on the SSD tier and systems that don't need such high performance, such as archiving, on slower drives," explains James.

Benefit

For Engelhardt, storage is an infrastructure that, as much as possible, should run in the background unnoticed. "We need a solution that just works," he says. In future, the foundation aims to have 100 percent of its infrastructure on the central SAN. But even today the existing Solaris infrastructure is already covered by the failover process. The Solaris computers run the Agfa hospital information system. This consolidation has led to savings on both intermediate layers and administrative expenditure. Another of the foundation's objectives is to merge more distributed solutions from the data archive, such as from digital radiology, together. PACS systems from General Electric will be integrated into the nearline SAS part of the storage solution along with digital patient files. This consolidation makes the administrators' jobs simpler, it also makes it easier for the foundation to cover legal compliance requirements.

Another of the factors that impressed the customer was the company's collaboration with the system house, Concat. "Concat showed us a solution, not a product, and Fujitsu seemed to be more focused on its technology than marketing," praises Engelhardt. "The collaboration between the two partners worked very well," he adds.

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