FUJITSU

Case Study

Service provider INFO AG relies on high-end storage system ETERNUS DX8700

» In terms of scalability, efficiency and the price/performance ratio, we are really satisfied with our new ETERNUS DX8700 system. Together with the new FalconStor NSS virtualisation solution, we now have access to a storage environment that is easy to manage and readily available «

Felix Rönnebeck, Head of Backup & Recovery Services, INFO Gesellschaft für Informationssysteme AG

THE CUSTOMER

The Hamburg based INFO Gesellschaft für Informationssysteme AG (INFO AG) belongs to the leading providers of IT outsourcing and IT consulting in Germany and has expertise in SAP and Microsoft. **www.info-ag.de**

INFO AG
Ein Unternehmen der QSC AG

THE CHALLENGE

To update the entire storage infrastructure in both INFO AG data centres in Hamburg, with the aim of achieving increased reliability and a reduction in administrative effort.

THE SOLUTION

Fujitsu ETERNUS DX8700 high-end storage system plus FalconStor NSS storage virtualisation software.

The customer

A readily available storage environment is vital for an outsourcing service provider - but efficiency and scalability also play an important role. This is also true for Hamburg based INFO AG, a full service provider which offers medium-sized clients an extensive range of ITK services from one single source - from telephone, data transfer, housing and hosting to IT outsourcing and IT consulting. INFO AG belongs, in the most part, to QSC AG and runs data centres in Hamburg and Oberhausen. Amongst others, the Deutscher Ring Lebensversicherungs AG, the Deutsche Angestellten Krankenkasse (DAK) and Olympus Europa Holding GmbH form part of INFO AG's client base that exceeds more than 130. With over 700 employees, INFO AG generates an annual turnover of more than 100 million euros.

The challenge

INFO AG runs a total of three data centres. Two are located in Hamburg and the third in Oberhausen. The old storage systems at these locations had become outdated and expandability had reached its limits. *"We operate shared storage environments for around 40 customers,"* explains Felix Rönnebeck, Head of Backup & Recovery Services at INFO AG. *"To do this, we need effective storage systems that are easy to manage. Eventually, that was no longer possible. However, as part of our update, we didn't just want a new hardware product but an actual solution."*

The solution

The storage system and storage virtualisation was supplied by Concat, a system house that operates nationwide. The company based in Hamburg focuses entirely on storage, which perfectly met the needs of INFO AG. Due to positive results with previous projects, Concat recommended the ETERNUS DX8700 enterprise storage systems from Fujitsu. In terms of scalability, performance and energy efficiency, this model sets entirely new standards. In addition, the storage virtualisation software FalconStor NSS dramatically reduces the administrative burden. *"This solution perfectly meets our requirements,"* states Felix Rönnebeck, *"and it even comes with an attractive price tag."*

THE BENEFIT

- SAN infrastructure with maximum availability and reliability
- Central and standardised management as well as monitoring of all SAN resources
- Excellent I/O performance
- High scalability
- Reduced energy costs of at least 40 per cent thanks to more efficient systems

THE PRODUCTS

- Storage systems with almost 1 PB of data:
  - 3 x Fujitsu ETERNUS DX8700 each with 576 GB Cache
- SAN infrastructure: 6 x Brocade DCX-8518 Switches
- Storage management software: ETERNUS SF
- Storage virtualisation: FalconStor Network Storage Server

The benefit

The advantage of the new overall solution was already apparent at the start of the project, as Lennart Off from Concat AG confirms: *"The migration from the old to the new systems is made much easier by a storage virtualisation solution such as the one from FalconStor. It is possible to implement it without disrupting business operations and, as a result, the process is much smoother than it usually is when there is a change in hardware."*

Incidentally, Concat is the largest FalconStor partner in Germany and thus has extensive experience, even with large storage projects. However, FalconStor Network Storage Server (NSS) is, of course, also advantageous in an operational business as it makes a valuable contribution to the high availability of the storage environment. *"FalconStor comprehensively covers topics such as data replication, snapshot creation and data mirroring,"* explains Lennart Off. At INFO AG, Concat implemented a concept made up of five NSS clusters and one ETERNUS DX8700 storage system per data centre. FalconStor NSS takes control of mirroring the data between the branches, including failover where necessary. By doing so, this guarantees maximum reliability - in other words, the risk of losing data is extremely minimal.

As Head of Backup & Recovery Services at INFO AG, Felix Rönnebeck, together with his team of 13 people, is also responsible for the storage systems, amongst other things. The previous nine systems in the data centres have been replaced with three new ETERNUS DX8700. Two systems are located in separate fire areas at one data centre in Hamburg, the third in another data centre site at 15 km away.

Of course, this consolidation to less hardware reduces the administrative effort involved. *"Thanks to FalconStor this will become even simpler as all of our storage systems can be managed using one central console,"* explains Rönnebeck. *"Using this single interface, we can distribute storage resources to the servers from just one storage*

pool. This distribution, as well as the moving of storage capacities, can happen at the simple click of a mouse. Even the expansion of storage resources is much less complicated in a virtualised storage environment as we can connect a new system without interrupting business,"* emphasises Rönnebeck.

In terms of expansion and scalability, the ETERNUS DX8700 systems leave nothing to be desired. Designed for large data centres, the maximum storage capacity of this model is a phenomenal 4,608 terabytes. The hard disk equipment at INFO AG totals 329 terabytes per system. *"We want to have peace and quiet for the next few years in terms of data growth,"* explains Rönnebeck. *"Therefore, this high measure of scalability is very important to us."* Inputting the economic 2.5 inch hard disks leads to an energy saving of another 40 per cent in comparison to larger data carriers. Therefore all ETERNUS DX systems already work very efficiently when it comes to energy.

Conclusion

The integrated security mechanisms make the ETERNUS DX8700 an ideal 'data safe'. Using 'Redundant Copy', Fujitsu have integrated a security standard which once more outperforms RAID. Behind Redundant Copy hides an automated, preventative disk drive replacement. This is the result of constant surveillance of error thresholds. The control inside the storage disk in the ETERNUS DX range is known as 'Data Block Guard'. This feature adds a verification code to each data block and verifies it at several checkpoints. And so the system monitors itself and thus once again relieves pressure from Rönnebeck's team. Alongside the advantage in security, INFO AG clients benefit from a performance boost, as the team leader explains:

"We are thrilled with the speed of the Fujitsu storage systems. Up until now we had three storage performance classes on offer for our clients. Following the implementation of the new ETERNUS DX8700 systems, we were able to expand our service range to a further - and even faster - top fourth class."

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