FUJITSU

Case Study
Olympus

»Fujitsu's ETERNUS DX was a convincing solution for our high demands in terms of reliability, performance and efficiency for storage management.«

Hartmut Hahn, General Manager Information Systems, Corporate Division, Olympus

The customer

Olympus is one of the world's leading manufacturers of optical and digital products such as cameras and audio devices, as well as microscopes and endoscopes for medical and industrial applications.
www.olympus.de

The project

- Replacement of high-end disk storage systems; implementation of new systems at two data center sites

The solution

- ETERNUS DX8400, the data safe for large enterprises
- Services: consulting, planning, implementation, data migration

SAN unable to meet expectations at Olympus

In 1919 Olympus was founded in Japan and today stands for more than 90 years of pioneering spirit and innovation leadership. As an innovator of new technologies Olympus developed the first microscope in Japan as well as the world's first endoscope. The company has also played a leading role in manufacturing lightweight compact cameras and a new generation of mirrorless cameras.

In order for Olympus to efficiently and effectively focus its innovative expertise on the market, the company needs a high-performance and extremely reliable IT infrastructure. In principle Olympus has been using such an infrastructure for many years: The server environment is essentially virtualized on the basis of VMware ESX Server, and the entire infrastructure is designed around two data centers with separate fire zones. To date the central components in the SAN included two storage systems and FalconStor Network Storage Server (NSS) as a virtualized storage solution for mirroring the data between the data centers, plus a transparent failover. However, to the customer's surprise, the central storage systems proved to be a weak spot during operations:

- System performance and scalability were inadequate.
- Numerous hard disk defects resulted in frequent service and maintenance downtimes.
- Production shutdowns occurred due to serious hardware problems.

Olympus implements the high-performance ETERNUS DX8400 platform in Germany

To eliminate these frequent problems in the SAN once and for all, Olympus once again demonstrated its innovative character.
In January 2011, in close cooperation with Fujitsu and its partner Concat AG, Olympus decided to replace the storage systems and carried out a smooth migration even as operations were running – and now the company's IT benefits from the proven high reliability, performance and efficiency of ETERNUS DX8400 storage systems. The implementation of a storage infrastructure based on ETERNUS DX eliminated the weaknesses in IT operations and has improved overall reliability.

Customer benefits	Products and services
■ SAN infrastructure with maximum availability and extremely high performance ■ Fail-safe data center environment with transparent and automated failover processes ■ Excellent I/O performance for databases and business-critical applications ■ Long-term investment protection due to outstanding scalability of storage system capacity and performance	**2 ETERNUS DX8400 – each with the following configuration** ■ Base and extension cabinet, 5x drive enclosure sets for max. 300 disk drivers with 200 TB of total capacity with RAID 5 security, 256 GB cache, 32 host connections with 8 Gbit/s Fibre Channel **Software** ■ ETERNUS SF Storage Cruiser Software **Services** ■ Installation services ■ Maintenance and Support

ETERNUS DX8400 decisively improves storage at Olympus

ETERNUS DX8000 storage systems are specially designed to meet the requirements of large enterprises. With more than 2.7 petabytes they offer maximum capacity as well as maximum performance with the 8 Gbit/s Fibre Channel host interface and fast quad-core processors. This has also been proven with the SPC Benchmark-1™ Test, in which the ETERNUS DX8400 delivered excellent I/O performance and cost-efficiency results. And it was tests such as these that convinced the IT managers at Olympus to implement the Fujitsu high-end storage system in Germany as well. Hartmut Hahn, General Manager Information Systems at Olympus, says:

"The proven reliability and performance of the ETERNUS DX8400, along with its outstanding price-performance ratio, were important factors that influenced our decision. But it was also the close partnership between Fujitsu and Concat, with mutual trust and commitment to our project, along with in-depth know-how transfer, that really impressed us."

The replacement of the old systems, carried out while IT operations were running, was the first challenge the partners had to face.

Smooth project implementation

The SAN infrastructure at Olympus covers two data centers and includes an existing FalconStor NSS environment. Thanks to this storage virtualization, the old systems could be replaced by two ETERNUS DX8400 systems without any downtime, and the data was migrated during normal business hours. During the first project phase, an old system and one new ETERNUS system were run in parallel in data center 1, then the FalconStor appliance was used to transfer the transparent mirror for a smooth migration, and after that productive operations were switched over to the ETERNUS DX8400. The second phase involved the same procedure in data center 2, along with setting up the mirror between both data centers. The migration of 60 terabytes of enterprise data took place during running operations without any interruption – and was completed within an unbelievable record time of 1.5 days.

A perfect match: ETERNUS DX8400 and FalconStor NSS

With ETERNUS DX8400 and FalconStor NSS Olympus now has a completely virtualized SAN infrastructure that combines maximum availability with extremely high performance. Innovative functions in ETERNUS DX, for example Data Block Guard for data consistency, data encryption or ETERNUS SF Storage Cruiser Software for easy monitoring and ensured business continuity, ideally match and complement the functions of the FalconStor appliance. With this solution Olympus has not only implemented a transparent mirror of its VMware environment, but also and above all high-availability operations throughout its entire infrastructure, with the option of migrating data at any time without interrupting business and IT processes.

→ http://ts.fujitsu.com/products/storage/disk/eternus/eternus_dx8000.html

concat AG
IT SOLUTIONS

Concat AG IT Solutions
Niendorfer Weg 11
D-22453 Hamburg
Email: fujitsu@concat.de
Phone: +49 (0) 40 6966000 0
www.concat.de

Contact
Fujitsu Technology Solutions
Customer Interaction Center
Mon. – Fri.: 8:00 a.m. – 6:00 p.m.
Email: cic@ts.fujitsu.com
Phone: +49 (0) 1805-372 100

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