

Case Study

GKL Marketing-Marktforschung GmbH & Co. KG

»Since we implemented the ETERNUS DX600 S3 storage system with Extreme Cache and SSD drives, our dream of real-time computing has become a reality. Our response times now range from 0.1 to 1 millisecond«

Robert Gallinat, CIO, GKL Marketing-Marktforschung GmbH & Co. KG



The customer

GKL Marketing-Marktforschung GmbH & Co. KG's (GKL) business operations revolve around three letters that practically every consumer comes into contact with every day. This is the EAN, or European Article Number, also known as the Global Trade Item Number (GTIN). It is the official term for the barcodes on the packaging of any consumer product. Berlin-based GKL provides its customers with market research data from hypermarkets in Germany, such as price information. This data is recorded and stored in databases according to the sector, product category and customer requirements. GKL's customers - mostly large commercial enterprises - use the information to make strategic decisions and predictions about retail prices.

The challenge

Each year, GKL generates some 50 million datasets that not only need to be stored securely in a storage system, but must also be able to be accessed incredibly quickly. The market research company has around 200 contractors across Germany who collect information about the goods using barcode scanners. The data is transferred to the GKL databases in Berlin via UTMS. Each market produces around 20,000 to 40,000 prices, which are summarized into several million datasets each month. The storage system requirements are very high, particularly in terms of access time, security and restoring data. "Our aim was to find a storage environment that would allow us to carry out database queries across 30 million datasets in a maximum of half a second," explains Robert Gallinat, CIO at GKL.

The solution

Following consultation with the Fujitsu partner PROFI Engineering Systems AG, GKL ordered the largest mid-range model. In the GKL data center, there is now an ETERNUS DX600 S3 storage system containing a variety of drive types with a total capacity of 321.60 TB and a 5.6 TB Extreme Cache. The existing servers were replaced as part of the project.

The customer

Country: Germany
Industry: Market research
Founded: 1993
Employees: 24
Website: www.gkl.de



The challenge

GKL Marketing-Marktforschung GmbH & Co. KG required a high performance storage system to allow database queries to be carried out in real-time and to enable millions of datasets to be stored and restored as quickly as possible.

The solution

Fujitsu ETERNUS DX600 S3 storage system with Extreme Cache, SSD drives and high-density enclosures. The mid-range models in the ETERNUS DX series feature a cache which can be expanded directly within the controller with flash-based storage devices. This Extreme Cache dramatically improves features such as response rates for business analytics with large, sequential read operations.

The benefit

- Extreme performance increase for all applications
- Greater operational security and availability
- High scalability

Products and services

Storage system:

- FUJITSU Storage ETERNUS DX600 S3 with Intel® Xeon® Processor and with Extreme Cache and four 2.5 inch expansion shelves
- 9.6 TB SSD drives (24x 400 GB)
- 72 TB SAS drives (48x 900 GB and 24x 1.2 TB)
- 240 TB NL-SAS drives (60x 4 TB)
- Management Software: ETERNUS SF

The benefit

The "purity" of the acquired data is very important for GKL as the EAN/GTIN labelling system has its limitations. "The barcode contains only general information about the product, not the market-specific price," explains Robert Gallinat. "Our employees have to type this in by hand for the particular market they are working in and we check it at the headquarters." The faster the database queries run, the faster potential errors can be identified and corrected. The ETERNUS DX600 S3 storage system performs fantastically in this respect. With a fully expanded Extreme Cache of 5.6 TB and fast solid state drives (SSDs), access times now range between 0 and 1 millisecond. "This means that our storage system can process database queries as quickly as an employee can type numbers in on the keyboard when checking the price data," says Gallinat. "Meaning that the ETERNUS DX600 S3 can essentially process data in real-time."

This impressive performance is also reflected in another area. "At one point in the past, our largest SQL server failed," remembers the CIO. "This system contained over 2 terabytes of data which we had to completely restore." This took GKL five days with their previous, smaller storage system. "We recently tested the ETERNUS DX600 S3 by restoring the same database which had since grown to 2.4 terabytes - it took less than two hours." This means that the ETERNUS DX600 S3 processed 70 gigabytes per minute. "According to our monitoring team, the controller was only working at up to 8% capacity," continues Gallinat. The new Fujitsu system also delivers impressive figures when it comes to full backups of the GKL data: "Before, a full backup would take 24 hours", says the CIO. "Now it takes just three hours and 20 minutes."

GKL is using a total of 24 fast 400 GB SSD drives. The mid-range storage system also includes SAS and near line SAS disks for less important data. There are also four further disk shelves alongside the main system. "This means we have every available class of storage covered," reports Robert Gallinat. "Around 30 to 40 percent of the data remains in the fully expanded Extreme Cache area, meaning it can be called up in nanoseconds."

Conclusion

GKL is also an innovative company when it comes to its energy supplies. There is a solar power system on the roof of the company's building in the Pankow area of Berlin which powers the uninterruptible power supply. For Robert Gallinat, the investment in a new, centralized, high performance storage system was absolutely worthwhile.

"Now that we have the ETERNUS DX600 S3, the process of restoring entire databases with their millions of datasets is much faster and something that we no longer really have to worry about. The Fujitsu system has given us a real strategic advantage."

Robert Gallinat, CIO, GKL Marketing-Marktforschung GmbH & Co. KG

In collaboration with



Contact

FUJITSU
Tel: +49 (0) 0800 37210000*
E-Mail: cic@ts.fujitsu.com
Website: www.fujitsu.com/de
2014-09-17

* free of charge if calling from Germany, Austria, and Switzerland

© 2014 Fujitsu and the Fujitsu logo are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries. Other company, product and service names may be trademarks or registered trademarks of their respective owners. Technical data subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.

Intel, the Intel logo, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries.