FUJITSU

Case Study
Helsana selects ETERNUS CS to consolidate its backup and archiving infrastructure

»The ETERNUS CS High End data protection appliance from Fujitsu gives us investment protection in terms of data backup scalability, plus freedom of choice when it comes to deploying server platforms such as mainframe and Linux systems. By consolidating our infrastructure, we can vary workloads and capacities as needed.«

Urs Häringer, Director of Technology Management, Helsana Insurance AG

The customer

Helsana Versicherungen AG is the largest health and accident insurance company in Switzerland, with some 1.9 million private and 55,000 business customers.
www.helsana.ch

Helsana

The project

Modernization and consolidation of the backup and archiving infrastructure to improve performance and add more capacity, while also cutting costs through easier administration and by reducing the footprint and energy consumption.

The solution

Implementation of two ETERNUS CS High End data protection appliances and two Scalar i6000 tape libraries. The systems are installed in two data centers so that the ETERNUS CS High End systems can replicate data between two different sites using the cascade function.

The migration project involved some 900 systems, 400 million objects and about 900 terabytes of data.

The Helsana Group: the largest health insurer in Switzerland
The Helsana mission is to ensure the availability of high-quality and cost-effective healthcare services. That is why the company maintains close contacts with customers, healthcare providers, media and other partners. The Helsana Group insures some 1.9 million people and generates an annual premium income of CHF 5.6 billion. The company has more than 3,000 employees. The core business is centered around insurance protection to offset the costs of illness and accidents, as well as support for maternity care and nursing for the aged.

The reasoning behind the IT consolidation project
"Data volumes were growing much faster than our infrastructure, so we were looking for a new solution that would ideally combine our Z10 mainframe with the Linux environment," explains Stefan Schneider, Director of Storage and Mainframe Engineering at Helsana. Furthermore, in addition to rapid data growth, the system environment at Helsana was also subject to ongoing change – instead of mainframe applications, more and more solutions were being run on open systems. This was an important reason for modernizing the backup and archiving environment, along with more performance and lower costs. Other requirements included high scalability to ensure enough headroom for continuing data growth, as well as improved disaster recovery.

Helsana opts for innovation and proximity
Fujitsu was able to fulfill all of the requirements in this project with one single solution. The ETERNUS CS High End is the only appliance on the market that offers standardized management for data backup from various system worlds. This data protection appliance also combines the advantages of hard disk and tape technologies, along with seamless scalability, while supporting the realization of all types of disaster recovery solutions imaginable for data backup and archiving. And this project offered an additional advantage: The geographical proximity to Fujitsu with developers in Germany ensured that the Helsana project could be implemented quickly, with support from the data experts at In & Work AG in Zurich.

Customer benefits

- Consolidated infrastructure based on a data protection appliance for backup and archiving in a Z10 mainframe and Linux environment
- High availability and affordable disaster protection
- Investment protection for an ever-changing system environment
- Reduced power consumption – for example, due to the reduction in the number of storage racks required, Helsana saves about EUR 250,000 annually in electrical power costs
- Smaller footprint
- Flexible capacity to handle more data growth

Products and services

- Storage solution: 2x ETERNUS CS High End each with 256 virtual drives
- Tape library: 2x Quantum Scalar i6000 each with 6 LTO-5 drives
- Services: Redesign of the data protection environment, implementation, migration of the old environment, initial start-up of the new infrastructure

Two data center sites, one solution

To backup data from the mainframe and Linux systems at Helsana, two ETERNUS CS High End data protection appliances were installed, one in each of the two separate data centers. In the new backup and archiving environment, these appliances serve as a virtualization layer between the servers and the physical tape libraries. Therefore, as soon as the mainframe and Linux systems write data to the hard disks in the ETERNUS CS High End, the appliance automatically takes care of the complete data management. This considerably increases backup and recovery performance. What's more, the ETERNUS CS High End also manages the tape storage, so that changes or interruptions occurring in the tape libraries do not affect the backup process. The various system worlds are consolidated through the combination of the mainframe z/OS operating system with hierarchical storage management (HSM), Linux with Tivoli Storage Management (TSM) Version 6.2, and ETERNUS CS High End V5 with new functions. The solution is further enhanced with two new Quantum Scalar tape robots that each have 6 LTO-5 drives, which take up much less space in the data centers when compared to the old tape libraries.

One functionality in the ETERNUS CS High End of key importance to Helsana is asynchronous (cascading) data replication, which guarantees affordable high availability and disaster protection in both data centers. This is possible because both data protection appliances can write data to each other in both directions as needed. Helsana can thus use each data center as the backup target for the other. This ensures reliable and efficient data recovery should the worst case scenario ever occur.

The result: more efficiency and improved data protection

The significance of the changes in the infrastructure resulting from the implementation of ETERNUS CS High End appliances is reflected in several key facts and figures. For example, the number of storage racks was reduced from 12 to 2, which enables Helsana to save about EUR 250,000 each year in power costs alone. While the number of virtual drives increased from 128 to 512, the number of physical drives was reduced from 19 to just 6. The disk cache capacity grew from 0.8 TB to 32 TB, and the data throughput rate skyrocketed from 600 MB/s to 2,500 MB/s. This proves that comprehensive consolidation with ETERNUS CS High End reduces costs while boosting performance and effectiveness at the same time.

The perspective: high flexibility and future security

Helsana has reached its main project objective of consolidating its existing system worlds to achieve better storage performance. In addition, Helsana is now in a good position to tackle future changes that may be required in its system environment. A key factor contributing to the success of this project was professional project management, according to Urs Häringer, Director of Technology Management:

"The collaboration with Fujitsu was based on a spirit of partnership. Experts were always available, and we always had a direct line to project engineering. What's more, the Fujitsu project portal supported easy management of our collaboration."

In collaboration with

Quantum.

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