FUJITSU

Case Study
Sparda-Datenverarbeitung eG

» With the ETERNUS CS High End, we can store all our backup data centrally, both from our mainframes (z/OS and z/VM with Linux) and from open system servers. The upgrade to the latest model has doubled our capacity, without taking up any more space in our data center «

Bernd Bohne, Head of the Central Systems Department, Sparda-Datenverarbeitung eG

THE CUSTOMER

Country: Germany
Sector: Finance/IT
Founded: 1983
Employees: 360
Website: www.sdv-it.de

SDV
Sparda-Datenverarbeitung eG

CHALLENGE

Modernizing and expanding the backup capacities in both of Sparda-Datenverarbeitung's data centers in Nuremberg, Germany.

APPROACH

Fujitsu's ETERNUS CS High End data protection appliance combined with StorageTek tape drives and libraries.

The customer

The Sparda banks are a group of twelve regional mutual savings banks, which employ around 7,000 people in 400 branches across Germany to support their 3.4 million members. All 12 Sparda banks and netbank, Europe's first internet bank, rely on the IT services provided by the Nuremberg-based company, Sparda-Datenverarbeitung eG (SDV). SDV provides these financial institutions with a stable, powerful IT infrastructure to allow them to operate without interruption. In 2012, the Sparda banks took first place in the customer satisfaction category of Kundenmonitor Deutschland's independent, cross-sector benchmark study for the 20th time.

The challenge

As an IT service provider in the financial sector, SDV operates two data centers with all server classes up to mainframes and a variety of server operating systems. For Bernd Bohne, the Head of the Central Systems Department at SDV, the challenge was to create a backup process that was as automated as possible within a manageable timeframe for the entire heterogeneous IT environment. *"Our previous solution had reached its capacity limits,"* explains Bernd Bohne. *"We deal with data volumes in petabytes, so for us, the performance of our backup system is absolutely crucial. This is why we chose the successor model to our Fujitsu virtual tape library system."*

The solution

With the ETERNUS CS High End, SDV is once again well-prepared to meet the demands of backing up these ever-increasing data volumes. The ETERNUS CS High End data protection appliance is split over two data centers but can be managed as a single logical target system. It first saves all of the data to hard drives as a volume cache, then later transfers this to tape via the two connected StorageTek tape libraries.

The benefit

SDV hosts the entire email system for the Sparda banks and manages 3,700 ATMs and bank statement printers in the branches. *"All of the core banking operations are handled by SDV,"* continues Bernd Bohne. *"This involves all of the customer data, including payment transactions and the banks' business processes."* This means that having a highly secure backup is essential and the performance class of the ETERNUS CS High End is perfect for this.

THE BENEFIT	PRODUCTS AND SERVICES
■ Centralized, standardized backup management for its heterogeneous IT environment ■ Reduced backup windows ■ High level of scalability providing investment protection ■ Reduced energy costs ■ Easy adapting to new technologies with automated tape migration ■ Automation and integration of tape processes	■ Backup system: 1 x Fujitsu ETERNUS CS4000 ■ Tape libraries: 2 x StorageTek SL8500 ■ Tape drives: 8 x StorageTek T10000B and 8x T10000C ■ Storage: Integration Services, Maintenance and Support

One of the main advantages is the high capacity and scalability of all of the components. The current total storage capacity of 600 terabytes can be increased to more than 3,400 terabytes. Performance can also be increased by flexibly increasing the number of processor nodes. *"This makes us a lot more future-proof,"* says Bernd Bohne, *"as this system can be expanded whenever we need increased performance."*

The large volume cache of 43.2 terabytes per sub-system in each data center ensures that the backup and restore processes run quickly. Around 35 terabytes of data from the two mainframes and open system servers are stored each day, which is then compressed at a ratio of 3:1 - a process which does not affect the performance of the system.

The SDV also uses tapes as a backup medium as these can be stored off-site, giving an extra layer of security. *"We made a conscious decision to use tapes again in addition to disk storage,"* explains Bernd Bohne. *"The ETERNUS CS High End includes automated tape integration, which makes this procedure very economical."* An IT service provider like SDV also needs to carry out multiple backups simultaneously. *"If we didn't have the ETERNUS CS High End, I would have theoretically needed twice the amount of physical drives per tape library, which would have been very expensive,"* continues Bohne. *"We actually use a total of 384 virtual tape drives with our ETERNUS CS system, in both sub-systems, which can carry out our data protection process in parallel."*

Another economic factor is the automated tape capacity utilization. Typically, backup software writes the data to be stored into many small partitions. This can be very demanding on the individual storage media. The ETERNUS CS High End optimizes this process as the data is first written to disks. As soon as a free window is available, the data flows into the connected tape libraries in a continuous stream. This means that the physical storage media can be used very efficiently and their service life noticeably increases.

To further increase the efficiency of the tape storage system, it is advisable to continually upgrade to more efficient media. *"When we replace physical drives, the ETERNUS CS High End simply migrates the data to the new medium without us having to spend time on the migration process ourselves,"* says Bohne. *"This is a great feature, which helps out a lot with our day-to-day backup routines. We always update our environment with the largest possible tape storage media and the most efficient drives. This saves space within the connected tape libraries, and therefore the physical space required for them."*

Conclusion
The high level of security at SDV is plain to see. The split ETERNUS CS High End data protection appliance immediately stores two copies at separate data centers. This data is then stored to tapes. This means that at least two copies of the data exist at any one time. The head of the Central Systems department is very pleased with the result:

"Our new ETERNUS CS High End is around 40 percent faster than our previous five year old system. The capacity has more than doubled, but our energy consumption has stayed about the same, which is a real saving. The sizing and technical installation on-site was carried out by Fujitsu consultants, and they did an excellent job."

About Fujitsu
Fujitsu is the leading Japanese provider of information and telecommunication technology (ICT)-based business solutions offering a wide range of technology products, solutions and services. The team, consisting of more than 170,000 employees, support customers in more than 100 different countries. Fujitsu uses its expertise in ICT to shape the future of the company together with its customers. For more information, visit www.fujitsu.com/de