



Success Story: Deutsche BKK

Data growth under control thanks to Backup Express and Syncsort's OSSV

Profile of the Organization

Largest corporate health insurance fund in Germany with 1,600 employees and about 1 million insured persons

Company Requirements

Rapid restoration in case of disaster

RPO and RTO optimization

A central backup solution

Scalability and flexibility

Simple central administration

Security through certification

Environment

5x Windows clusters with 2 nodes each

3x Novell NetWare clusters with 6, 3 and 2 nodes

120 Citrix-, 70 Windows and 20 Novell servers

NetApp VTL 600

2 NetApp Filers

MS Exchange, MS SQL and Lotus Notes applications

Adic Scalar 100 with three disk drives and 60 slots

HP MSL 5060 with 4 disk drives and 60 slots

HP MSL 6060 with 2 disk drives and 60 slots

Backup of about 8 terabytes of data at full backup

"For disaster prevention, Syncsort's OSSV is by far the best you can get right now."

Mr. Frerichs, Technical Consultant
SCC GmbH in Stuttgart

Deutsche BKK, headquartered in Wolfsburg, is one of Germany's most successful health insurance funds, managing about one million insured persons nationwide. The largest corporate health insurance fund in Germany, it was founded in 2002 from the fusion of the Deutsche Post and Volkswagen corporate health insurance funds. In order to offer its members a low premium rate while maximizing services, Deutsche BKK instituted a highly efficient administration system with a powerful IT infrastructure in the last few years. In the process, some of the computing center operations were outsourced to SCC, a systems provider, technology integrator, and service provider operating throughout Europe. This company manages the system environment at the computing center in Stuttgart.

"The handling of sensitive patient data required guarantees that our data not only be safeguarded according to the state-of-the-art, but that also it can be recovered as quickly as possible in case of disaster," recalls Wolfgang Weichert, who is responsible for operations at the computing center of Deutsche BKK. "SCC convinced us with its solution based on Backup Express from Syncsort."

Growth under Control with Backup Express

The IT infrastructure of Deutsche BKK places enormous demands on data protection due to its heterogeneity and critical data. In the Stuttgart data center, SCC protects a huge amount of data on Deutsche BKK's 120 Citrix, 70 Windows, and 20 Novell servers. Currently the 1,600 employees at Deutsche BKK's 54 locations work exclusively on Citrix "thin clients," each with virtually no hard drive. In the future Linux-based systems will be introduced in addition to four Windows clusters each with two front-end nodes, two Exchange clusters, and three Novell NetWare clusters with six, three, and two nodes respectively. Deutsche BKK has trusted Backup Express from Syncsort as its software for backing up critical data since the company's founding in 2002.

SCC provided services to BKK Post before they merged with Volkswagen BKK. Until 1999 SCC used ArcServe to back up BKK Post's data when increasing complexity made the system unstable. After that, the company switched to a HP data protector. However, this system lacked Novell NetWare certification. In 2001, SCC attended Novell Brainshare seeking more reliable support for backup and recovery. At Brainshare, SCC was introduced to Syncsort, the only company offering backup software certified for use on Novell systems at that time. Shortly thereafter BKK Post converted its systems to run Syncsort software and after merging with Volkswagen BKK Backup Express was used for the whole organization.

Unified Management of all Systems

About 120 incremental backup jobs – nearly 3.5 terabytes of data – run every night. Every weekend, a full, base backup is completed of Deutsche BKK's data, including Office file systems, Microsoft SQL, Lotus Notes, and Exchange. On average 98% of all backup jobs complete successfully and are recorded with "good" status.

Deutsche BKK utilizes 130 licenses of the current version of Backup Express, running on a Windows 2003 Master Server. The configuration currently consists of 16 device servers connected to tape drives, but will soon include four additional servers. SCC conducts Deutsche BKK's installation, configuration, and operation of Backup Express on all platforms through the same, simple graphical user interface, allowing an enormous reduction in the amount of staff training necessary.

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Advantages

Syncsort's OSSV currently offers the most efficient and fastest disaster recovery solution

Syncsort's OSSV bypasses the file system and secures data at the block level with a low CPU and network burden

Provides a basis for higher Service Level Agreements (SLAs)

Can handle future increases in data volume

Flexible data protection

Low administrative expense

Expanded reporting options



Flexibility and Speed through Virtuality

Currently, three tape libraries are in the computing center, including one ADIC Scalar 100 with three disk drives and sixty slots, one HP MSL 5060 with four disk drives and sixty slots, and one HP MSL 6060 with two disk drives and sixty slots. Though each disk drive supports LTO-1 functionality, the actual backups are run on a NetApp VTL 600 virtual tape library.

"The advantages of VTL are mainly its speed and flexibility in backup and restore functionality," said SCC Senior Consultant in charge of high-availability solutions, Uwe Frerichs. "One reason for this is that the time-consuming positioning of the tapes is now completely unnecessary, making access to the hard disk considerably faster during restore jobs. I can always call up an individual tape from VTL at any time – the configuration is ideal for us."

Disaster Prevention – An Extreme Situation under Control

"Deutsche BKK is at the cutting-edge with its commitment to a paper-free office. All documents are scanned within 24 hours and transferred to agents in charge. The ability of the health insurance company to function depends on this information, so disaster recovery is held to particularly high standards," said Wolfgang Weichart, describing the importance of Deutsche BKK's backup environment. This great importance is why Deutsche BKK trusts Syncsort Open Systems SnapVault (OSSV) technology on its systems.

Up to now, backup solutions have only addressed how data protection might best be performed. In addition to performance considerations, Syncsort tailored its backup solution for the different kinds of data being protected. The Syncsort solution backs up changed records at the file-level as well as the lower data block-level differently and thus, more efficiently. Using AdvancedClient OSSV technology, Backup Express only copies data blocks that are actually changed. The result is an exact copy of the original data, which is generated much faster than would be possible in the case of file-oriented backup systems. This data is not stored on the VTL, but rather on a NetApp Filer. Two of these machines are currently in use, but only one is used for backup jobs.

During Backup Express incremental backups, only modified data blocks are backed up, not the entire files, which reduces the data volume to be saved by up to 90%. This also reduces the time taken for the backup job, minimizes CPU impact, and reduces data volume on the network. The result is that backups can be performed at very short intervals and during ongoing operations, without other network services suffering as a result, but there is still an exact copy of the original available on the backup media after the backup.

Recovery in Minutes

Previously, backup jobs could only be run once a day in the middle of the night. With Backup Express, backup jobs can now be performed on an hourly basis. In addition, this new technology has revolutionized the recovery of data. When individual files were damaged or deleted, tape-based recovery required a long and tedious process. However, using Syncsort OSSV technology, Backup Express can recover files in a matter of minutes by simply replaying the backup drive on the server. Should the entire drive fail, Backup Express mounts the backup drive while the original backup remains write-protected, the alterations are listed again on a block-by-block basis, and the backup changes are combined after the defective hard drives are exchanged.

"What this means for practical purposes anyone can imagine who had to restore data for one day alone," says Uwe Frerichs of SCC. "For us, there is also the huge advantage that we can provide Deutsche BKK with a quote, in which we can calculate the service level agreements (SLA's) down to a single computer in the event of a disaster. This means we can promise that no matter what, the ability to again be up and running within a few minutes. For disaster prevention, Syncsort's OSSV is most definitely the best that the market currently has to offer."