

Reliable, Faster and Doubly Secure

Because of constantly growing amounts of data and backup times of up to 25 hours, the software company Nero AG reached the limits of its decentralized data backup solution. In cooperation with IT provider WM Elektronik Göppingen, the software specialist centralized their backup and installed two Tandberg Data tape libraries in the Karlsbad headquarters. With its high-performance fully automatic data backup solution, Nero reduced the backup time by 80 percent and is well prepared for future expansions, thanks to the modular construction of the tape libraries.



Nero AG headquarters in Karlsbad develops and markets technologies for digital media. So far over 300 million units of the Nero software solutions – among others the Nero Burning ROM—are in use all over the world. Besides the Karlsbad headquarters, Nero has regional branches in Glendale, California, and Yokohama, Japan, as well as development centers in Karlsbad and Hangzhou, China. The worldwide IT activities are directed by the IT general office at headquarters in Karlsbad; IT specialists at the individual locations ensure problem free operations.

The base for smooth development, sales and implementation of Nero products is a high-capacity and reliable storage architecture. Aside from applications, codecs, tools, software development kits, and programming interfaces, the company's data as well as research and development results must be quickly recoverable in case of an outage. Therefore, regular and reliable backups are indispensable. Daily data backup covers around twelve Terabyte (TB) from various applications: the intranet, the worldwide end customer support system, the development platforms and the various email and database servers (MySQL unter Linux and Windows, Microsoft SQL).

No Compromise When it Comes to Data Protection

In data backup matters, Nero acts cautiously, also to avoid interminable data reconstructions. Until recently, Nero depended on a full backup. However, with a duration of 25 hours such an extensive backup is not feasible on a daily basis. The IT performance was compromised by this almost continuous backup process. Since the company is based in the USA, Germany and China, the IT team in Karlsbad was forced to limit the number of hours per night it could perform their backup.

The data backup solution implemented did not fulfil the demanding technical requirements anymore; the system had reached its limits, especially in matters of transfer speed and efficiency. Nero relied on single tape drives connected directly to the servers for their data backup. Rene Petri, Senior Director of Technical Services at Nero AG, describes the situation as follows: "With locations and branches in three time zones, backups always interfere with times of high processing loads. Since the amount of data to backup is enormous and grows continuously, a

SOLUTION OVERVIEW

nero



2 x Tandberg Data StorageLibrary T40 with 40 slots
2 x LTO 4 drive

ARCserve

Windows 2003 Server



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Senior Director of Technical Services
at Nero AG



evaluation unit and during the tests, WM Elektronik paid particular attention to all problem fields. We tested intensively at Nero for a full week to see whether Tandberg Data's tape backup solution would meet expectations in conjunction with the existing infrastructure and the demanding requirements. In this process, parallel backups were performed, both drives were addressed, and the compatibility of the Tandberg Data hardware with the ARCserve software was tested for efficiency and stability," explains Werner Möhrle, president of WM Elektronik Vertriebs GmbH.

Uninterrupted Data Protection

After successful testing, two StorageLibraries T40s were purchased to protect Nero's data. The redundant configuration of the tape library guarantees the highest levels of data protection, by backing up the data of each server room by both libraries. Both libraries contain two LTO-4 drives and 40 slots. With a data throughput rate of 80MB/s, the tape drives provide a quick backup, and their scalability guarantees the expandability of the libraries at a very reasonable cost.. The data is transferred via a dedicated storage network and a backup server, in order to relieve the data servers and guarantee high performance, even when the workload is high.

Currently Nero uses all 40 slots in the StorageLibraries T40s so no tapes need to be changed during normal operation, and the backup jobs can be carried out one after the other without interruption. Nero uses integrated decentralized RAID systems. The backup software ARCserve runs on a Windows 2003 server. For non-critical work data and test installations that are not backed up on a fixed schedule, Karlsbad uses additional local NAS devices for cost reasons.

Since its implementation, the system operates in a stable manner and has sped up the backup process at Nero. "At our headquarters we now have to process over a Terabyte of email data. The redundant

daily backup was just not possible anymore. We urgently needed a new backup solution and turned to our IT provider WM Elektronik, who has assisted us with other IT projects in the past."

Further Expansion an Option

Data backups at Nero include more than 100 heterogeneous backup jobs, because of the different applications. For this reason, it was important to everyone involved that the new solution could perform several backups simultaneously. Since security is of the utmost importance, data must be backed up redundantly in two different server rooms. With the support of WM Elektronik, the exact criteria and the budget limitations were determined. Having had very positive experiences with storage solutions from Tandberg Data in the past, they were able to find backup and archival solutions in the specialist's portfolio.

The Tandberg StorageLibraries T40, T40+, and T80+ are designed for midrange and enterprise environments. They deliver a capacity of up to 123.2 Terabytes and a performance of up to 6.9TB/hr. The Capacity on Demand (COD) feature allows users to increase the capacity according to their requirements. With the Performance on Demand (POD) feature, users can integrate up to four full-height LTO drives or 8 half-height LTO drives, as and when the need arises. Migrating up to the next LTO generation further increases the performance and capacity of the Tape Library.

The IT provider WM Elektronik recommended a StorageLibrary T40 for Nero, which delivers a capacity of up to 64TB (compressed) and up to 40 slots in only four rack height units (4U). The compatibility between library, network and servers was tested in advance with an



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data storage on the tape libraries from Tandberg Data gives us security: we do not require a constant full backup, the daily backup time has been reduced from 25 hours to a window of three to four hours,” explains Rene Petri.

Secure and Reliable

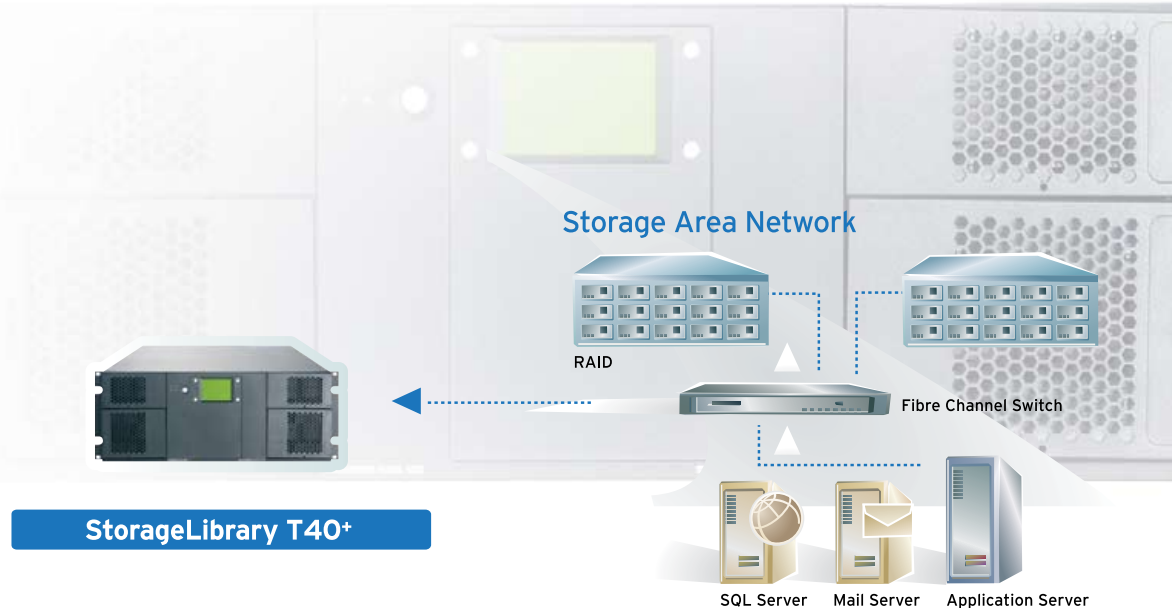
The full backup has been replaced by a combination of full and differential backups. The full backup is still maintained on a bi-weekly basis, and these tapes are stored for archival purposes. The email and user data of the branch offices are backed up locally. An external provider fulfils the legal obligations of the email and document archival.

In Karlsbad, Nero is completely convinced of the Tandberg Data solution. The T40 libraries work without incidents, and the Tandberg media meet the high expectations of the Nero management: “The error quota of the tapes is very low. At times, we have used tapes from a non-certified manufacturer and noticed the difference immediately. The quality and reliability left much to be desired, so we went right back to the Tandberg Data media,” says Rene Petri. For enhanced reliability, the tapes are replaced after about one to one and a half years, and part of the tapes continue to be used afterwards for archival purposes.

Well-Earned Trust

In case of an outage, the support of a backup specialist is greatly appreciated. In the past, Tandberg Data had reacted quickly as agreed in the service contract. “We could always rely on the service of Tandberg Data and WM Elektronik: We have been using their tape backup devices since the year 2000 – when we have hardware needs, the correct device is delivered within a day. We are very happy with that,” emphasizes Rene Petri.

After the success in the past, Nero continues to plan on expanding its data backup system with Tandberg Data. The increasing amount of data actually already requires an upgrade with another T40 library, which is possible without any problems because of the modular configuration of devices. For the time being, there is no room in the server rooms, but after the current consolidation of servers in the Karlsbad computer center, nothing will stop the expansion of libraries. The implementation of a disk based backup solution is also being considered, in order to further increase the data throughput of backups.



About Tandberg Data

Tandberg Data is a leading global supplier of backup and archiving technologies. Tandberg Data offers a complete range of tape libraries, tape autoloaders and tape drives (based on the LTO™, SLR™, VXA® tape technology platforms), storage software, data media and disk-based storage such as the RDX® QuikStor. These solutions are marketed exclusively through a channel of qualified resellers and distributors. These solutions are underpinned by OEM agreements with major server manufacturers including IBM, Hitachi, Fujitsu-Siemens, Apple and Dell and supported by all major operating systems and storage software applications to operate in heterogeneous network environments. All solutions are designed to meet the growing storage requirements of small and medium-sized organisations with scalability, reliability and backward compatibility features that ensure cost effective operation and long-term investment protection.

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