

CASE STUDY

Lindner Group Centralizes Backup for 60 Locations with DXi Appliances

The Lindner Group—a leading interior fit-out, facade construction, and insulation engineering company—launched a major organization-wide project to centralize backups for 60 locations in multiple countries. But, spiraling data growth quickly pushed the virtual tape library at its corporate headquarters in Arnstorf, Germany to its limits. The company integrated two DXi deduplication appliances, optimizing its centralized backup workflow and data restore process.



FEATURED PRODUCTS

DXi®-Series Deduplication Appliances



Thanks to the deduplication appliances, our disk storage requirements have gone down from 2 PB to a mere 150 TB. And the capacities of the two DXi appliances are nowhere near exhausted.

Florian Heindl
IT administrator, Lindner Group



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SOLUTION OVERVIEW

- DXi6900 and DXi6700 deduplication appliances
- Dell ML6000 tape library
- Microsoft DFSR
- Commvault v10 R2 software

KEY BENEFITS

- Centralized backup workflow eliminates tape handling at local sites and improves overall reliability.
- Consolidated backup replicates data to central site in real time and ensures that backups are completed within the allowed backup window.
- DXi deduplication technology reduces backup disk requirements by more than 90%.
- Automated DR protection provides long-term retention of backup on tape at the company headquarters in Arnstorf, Germany.
- DXi deduplication keeps months of backup data on disk, making restores fast and easy.

The Lindner Group is a remarkably successful international business with more than 50 years of experience in fitting-out interiors, and constructing facades and engineering insulation systems. With approximately 6,500 employees at production sites and subsidiaries in more than 20 countries, this leading construction specialist has worked on a wide variety of projects, including building the interior of the German Federal Chancellery in Berlin and the reconstruction of the legendary Wembley Stadium in London. A company this size needs an automated, reliable backup workflow to keep up with steadily increasing data volumes to ensure business continuity.

DATA LOSS DUE TO DISTRIBUTED BACKUP PROCESSES

The Lindner Group has a complex server infrastructure, comprised of both physical and virtual servers on Linux and Windows platforms. Not only does every branch office have its own server, but some of the larger construction sites also have their own IT infrastructure. “Before, the data at the individual sites was backed up

on local tape drives,” recalls Florian Heindl, IT administrator at the Lindner Group. “The fact that we did not have a central backup workflow in place often caused problems because we could not deploy IT staff at all sites.” Instead, designated employees at the remote sites would be assigned to change tapes. Unfortunately, sometimes the wrong tapes would be inserted, or the employees—who had other primary responsibilities—would forget to change them.

To improve backup control and minimize errors, the Lindner Group decided to implement a centralized process. Initially, the Lindner IT team used Microsoft’s Distributed File System Replication (DFSR) to replicate the data from all locations to the corporate headquarters in Arnstorf, Germany. There, the data was backed up using Commvault software to the company’s centralized virtual tape library, and then to a physical tape library. However, data volumes soon outgrew the disk system’s capacity. The Lindner team needed to find a new solution that would not only be able to handle the current data volumes,

but also easily scale in the future. “It was clear that the new solution would definitely have to include a deduplication feature to avoid wasting capacity,” says Heindl.

DXi TRIAL A SUCCESS

For help in selecting a new solution, Heindl turned to Florestan, a Quantum Silver partner that has been providing backup services to the Lindner Group for many years. Both companies agreed a trial implementation would be a good way to evaluate the effectiveness of Quantum’s DXi deduplication appliances. In 2013, while the previous backup process remained in place, individual data sets were additionally backed up to a DXi6700 appliance to test the deduplication ratio and throughput rate. And Heindl was very pleased with the result. “It was the deduplication and the flexibility of creating virtual drives, in particular, that convinced us,” Heindl explains. “With our large number of servers, both physical and virtual, we have to back up to a large number of virtual tape drives—more than our previous solution could handle. Now, the Quantum dedupe technology and the large number of virtual drives the DXi supports have provided exactly what we needed.”

Based on the results from the trial, Heindl decided to deploy the DXi deduplication appliance in 2014. Later, an additional DXi6900 deduplication appliance was purchased to meet the data growth and performance requirements. “Thanks to the deduplication appliance, our disk storage

requirements have gone down from 2 PB to a mere 150 TB. And the capacities of the two DXi appliances are nowhere near exhausted.” Heindl is now able to retain all weekly backups, the last three quarterly backups, and the last annual backup—all on disk for fast restores.

Lindner needed a solution that could grow if data volumes increased due to new locations, company acquisitions, or other changes. Heindl was impressed by the scalability of the DXi appliances. “The Quantum deduplication appliances constitute a considerable improvement over the previous solution, which did not allow us to hold more than one week’s backup. If a problem occurred, and we had to perform an unscheduled full backup during the week, that process used up our entire disk storage capacity immediately,” Heindl remembers. “Another advantage of the Quantum deduplication appliances is that they are scalable to whatever data volumes await us in the future.”

PROVIDING 100% DISASTER RECOVERY PROTECTION

Today, the Lindner Group benefits from an integrated, centralized backup and disaster recovery process. For all but two locations where local data is still kept on tape, all company offices and construction sites replicate data in real time to the data center in Arnstorf. There, all the backups are written to the DXi appliances—full backups each

ABOUT THE LINDNER GROUP

The Lindner Group is Europe’s leading company for interior fit-out, facade construction, and insulation engineering. Founded in 1965 in Arnstorf, Germany, the company comprises an international network that delivers comprehensive, custom design, manufacturing, and construction solutions via a unique “concepts-products-service” performance chain. As an environmentally conscious, innovative family enterprise, Lindner highly values sustainable development, and applies future-oriented energy management and environmental protection at all building and production sites. For more information about the Lindner Group, visit www.lindner-group.com/en.



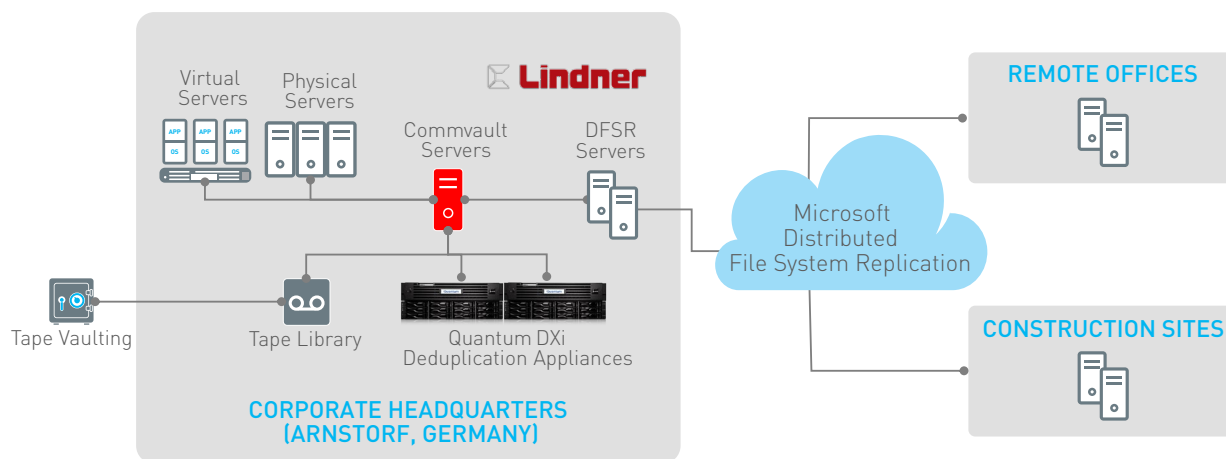


weekend and differential backups every weekday. Backups written to the DXi system are also written to tape immediately, using Commvault software to control the process. Once a week, the backup tapes are brought into one of several separate, protected locations where they are placed in a safe to provide disaster recovery (DR) protection.

The old backup infrastructure proved especially inefficient when it came to restoring data. "Since we backed up all data

on tape, we had to first find and remove the tapes from the safe, and then load the data back into our system. It was very time-consuming," Heindl explains. "With the DXi deduplication appliances, many months of backup data is retained on disk. So when files are needed, they are first restored from the DXi to the respective DFSR server in Arnstorf, and then transferred via DFSR to the individual site. If necessary, employees at all locations can access the data sets stored at the corporate headquarters—so they can continue working no matter what happens."

Heindl is very pleased with the backup performance Lindner has been able to achieve with Quantum technology. "Quantum has improved our backup performance considerably. We could never have managed our current data volume with the old solution." In the near future, the last two locations still using local tape drives will be incorporated into the centralized backup process. In the long run, the DXi6700 appliance will be replaced by a DXi6900 appliance to provide higher capacities to handle future growth.



ABOUT QUANTUM

Quantum is a leading expert in scale-out tiered storage, archive, and data protection, providing solutions for capturing, sharing, and preserving digital assets over the entire data lifecycle. From small businesses to major enterprises, more than 100,000 customers have trusted Quantum to address their most demanding data workflow challenges. Quantum's end-to-end, tiered storage foundation enables customers to maximize the value of their data by making it accessible whenever and wherever needed, retaining it indefinitely and reducing total cost and complexity. See how at www.quantum.com/customerstories.

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