Quantum

CASE STUDY

OSI Food Solutions Finds the Right Recipe for Multi-site Backup with DXi Appliances

Increasing data volumes across all locations pushed the backup and replication infrastructure of the OSI Group to its limits. Quantum helped the food manufacturer face the challenge by installing a robust backup infrastructure that guaranteed minimum impact on production processes and leveraged the company's virtual infrastructure.

FEATURED PRODUCTS

DXi-Series

> The deduplication ratio of 155:1, achieved in Denzingen, proves the efficiency of the Quantum technology—large volumes of data are reduced to a minimum.

Christian Müller
Senior IT Specialist at OSI Food Solutions

> The results have been wonderful. Thanks to the Quantum deduplication appliances, everything, backup and replication, runs automatically.

Christian Müller – Senior IT Specialist at OSI Food Solutions

SOLUTION OVERVIEW

- DXi3500, DXi4500 and DXi6700 physical deduplication appliances
- DXi V1000 virtual deduplication appliance
- Symantec Backup Exec 2014 & 2015

SOLUTION OVERVIEW

- Backing up to DXi appliances cuts time needed for backup by 50% and eliminates conflicts with production schedules
- Reducing backup volume reduces disk requirements by more than 85% across all locations
- Replicating across multiple sites provides fully automated disaster recovery protection, eliminates tape handling and human error in most locations, and accelerates restores
- Using one single vendor and experienced integrator for the entire system ensures reliability
- Use of a virtual deduplication appliance for small offices reduces costs and leverages the company's investment in VMware
- Replication scheduling and bandwidth throttling features ensure automated multi-site protection while preserving network availability for other operations

With approximately 20,000 employees at more than 50 production sites in 18 countries, the OSI Group is a world leader in developing and producing food products, with customers that include McDonald's and other global brands. In 2009, high data growth threatened the performance at the production facilities. The legacy tape backup systems at the headquarters in Günzburg as well as the branches in Denzingen, Duisburg, Bad Iburg and Neuss could no longer handle the increasing data volumes, making backup windows far too long.

"The slow backups would extend into our daily business operations, creating delays," explains Christian Müller, Senior IT Specialist at OSI Food Solutions Germany GmbH. "At the same time, tape management became increasingly complex, costing additional time and introducing opportunities for error."

RAPID DATA GROWTH PUSHES DEDUPLICATION APPLIANCES TO THEIR LIMITS

The company responded to these challenges by replacing the old tape libraries with Quantum DXi® disk appliances in their two largest locations, the Günzburg headquarters and Denzingen, the largest satellite branch. Local backups went to the appliances, and replication provided daily off-site protection. Backup windows were cut by 50%, eliminating the conflict with production schedules, and the replication eliminated daily tape use at those locations.

The new processes worked perfectly for five years, but in 2014, Christian Müller and the IT team felt like they were having déjà vu. Data had more than doubled across the sites including new databases used in multiple locations, new sites were being added, and the company had virtualized over 90% of its servers. The combination created new data protection headaches.

"VMs are easy to deduplicate, but they take up quite a bit of storage space in the backup systems," Müller says. "In short, we were running out of space and time…again."

OSI CONTINUES WITH QUANTUM AND ITS PARTNER FLORESTAN

The IT team was impressed at how well their original DXi-Series operated, so they contacted Quantum and Florestan, a Quantum value-added reseller and integrator partner, for help in making plans to update and expand their system. The DXi appliance at the headquarters was replaced with a larger, more scalable model, the DXi6700, and new DXi appliances were installed at Denzingen, Bad Iburg, Duisburg, Salzburg, and a new site in Kazatin, Ukraine. In 2015 two new DXi appliances—replicating to each other—were installed in Scunthorpe, United Kingdom.

AUTOMATING COMPLEX BACKUP AND REPLICATION PROCESSES

"With so many locations, we needed to look not only at capacity but also how to set up a complex replication system," Müller explains. The products and the integration team were up to the task.

With the new system, the headquarters site carries out full backups—today 6TB—on weekends, and incremental backups are created daily during the week. At all other locations, full backups are created on a daily basis, so that a complete restore can be performed at any time. Müller integrated parallel replication processes between the various locations to retain redundant copies of the daily full backups of all sites for disaster recovery purposes.

The fact that DXi deduplication appliances allow for time-controlled bandwidth restriction is a great advantage because it allowed the team to configure the replication process to avoid any conflict with other uses for the network. While tape libraries are still used in the two largest sites, to provide an additional level of off-site protection and to allow the team to read data back from legacy tape backups, tape is used in Salzburg for long-term data retention.

"The results have been wonderful. Thanks to the Quantum deduplication appliances, everything, backup and replication, runs automatically," Müller says.

SUPERIOR DEDUPLICATION RATES DELIVER IMPRESSIVE RESULTS

Besides the automated backup and replication processes, Müller is delighted by the savings enabled by the deduplication technology, which had already been a great success when first introduced. The original deployments in 2009, reduced backup volumes by more than 85% across all locations. The new systems are seeing similar results, but in one unit, the system in Denzingen, the team is seeing a deduplication rate of a full 155:1. That rate is partly a result of replicating the entire data set from Günzburg to Denzingen and the fact that Quantum's global deduplication eliminates redundancies inside files across nodes.

Müller is also very happy with the restore operations: "We have already had to perform several restores—individual data is restored much faster than with the old systems. And the deduplication appliances also reduce the failure rate because we don't need to exchange tapes in the library anymore. That makes things much easier."

ABOUT OSI FOOD SOLUTIONS GERMANY GMBH

The core business of the OSI Food Solutions Germany GmbH (OSI Group) is the large-scale processing of high-quality food products, including beef, pork, and chicken. One of its most prominent customers is McDonald's, which depends on the OSI Group as a major, worldwide supplier. The OSI Group has roughly 20,000 employees at more than 50 production sites in 18 countries, and it delivers food products to businesses in more than 80 countries. OSI Foods Solution Germany GmbH in Günzburg provides IT, finance, and controlling services to the European affiliates of the OSI Group, including the offices in Duisburg, Günzburg, Bad Iburg, Neuss, Denzingen, and Traunstein. For more information about the OSI Group, please visit: www.osigroup.com.

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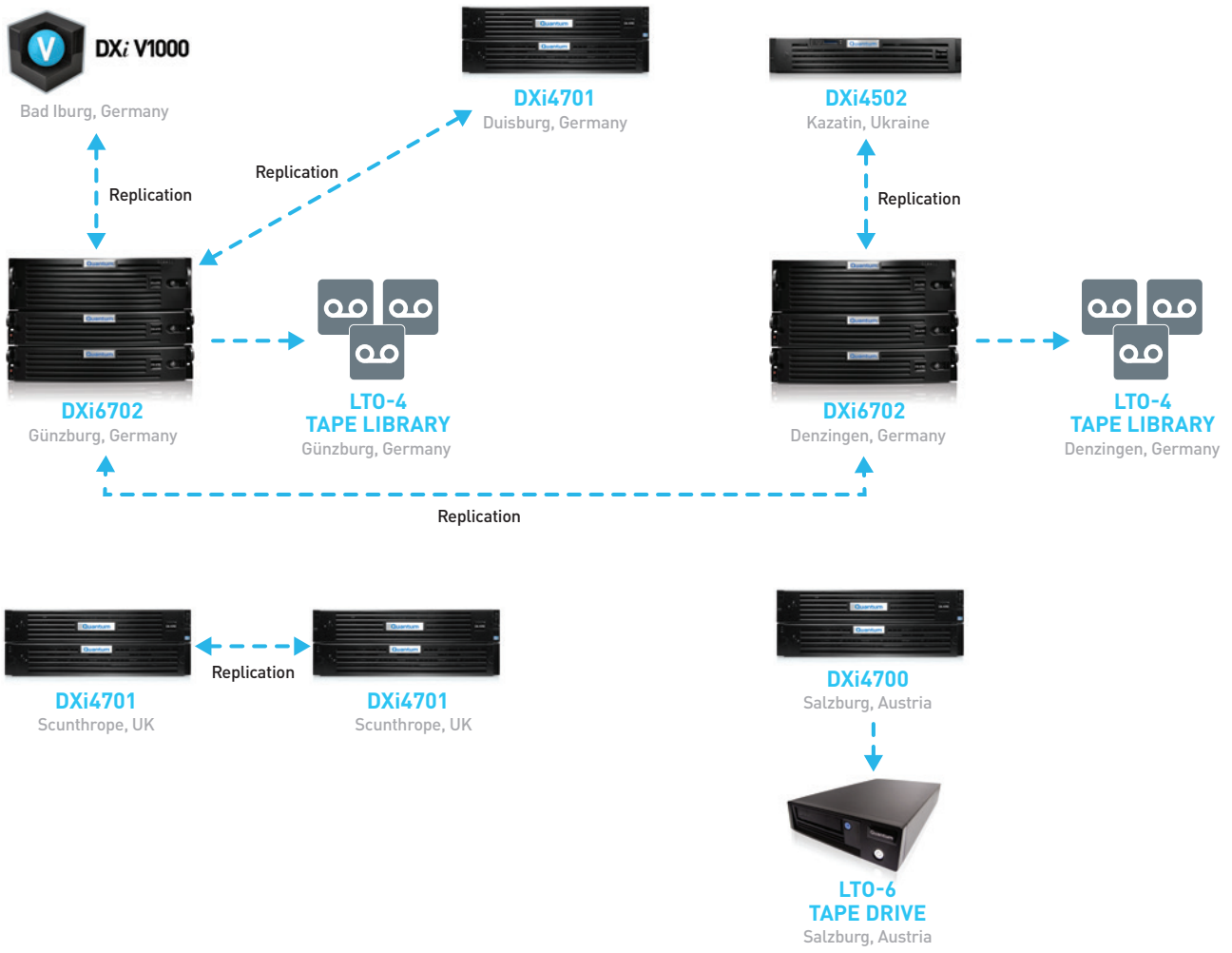
LEVERAGING VIRTUALIZATION TO REDUCE COSTS: THE DXI V1000

As a substantial virtualization customer, it made sense for OSI to leverage the technology by incorporating Quantum's virtual DXi appliance, the DXi V1000. The DXi V1000 uses VMware to create a virtual DXi disk backup appliance that looks like a separate physical appliance to backup software. Like physical appliances, it stores local backups and replicates data to other DXi systems, but it completely eliminates the need to install a physical appliance at the supported site.

"The DXi V1000 is the perfect solution for our smaller branch at Bad Iburg—it has a very good deduplication rate for both virtual and physical servers, it is affordable, and having a virtual appliance is particularly suitable for decentralized operations," Müller says.

Now that the system is up and operating, the tape libraries in the smaller sites have been replaced by deduplication appliances that replicate backup data between sites automatically via defined policies. The results are faster backup, faster restores, and reduced administration time. The OSI Group and Florestan are already planning the next steps: installing a new DXi in Enns, adding replication for Salzburg, and updating backup software to Backup Exec in all of Europe. Müller is very much satisfied with the results: "We are all set for the next data explosion."

Figure 1. ***OSI – Multi-site Backup Infrastructure***



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