



NetApp™
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Customer Success Story

Porsche Holding runs well on highly available storage and flexible data management from NetApp

PORSCHE
INFORMATIK GMBH

Another NetApp solution delivered by:



THE HIGHLIGHTS

Industry

Automobile trade

The Challenge

Implementation of a powerful, highly available storage infrastructure for thousands of users across Europe

The Solution

NetApp Unified Storage and MetroCluster software in combination with flexible and efficient NetApp data management

The Benefits

- Cost benefits in operation, scalability and licensing
- Wide range of options for storage virtualization
- High level of flexibility in connectivity, data recovery and quality assurance
- Seamless scalability and upgrade options
- Predictability and investment protection

CUSTOMER PROFILE

Porsche Holding GmbH is one of the largest private commercial enterprises in Austria, and one of Europe's most successful automobile trade companies. The company headquartered in Salzburg, is represented in 18 European countries and in China. Its portfolio includes not only the Porsche sports car but also the VW Group brands (VW, Audi, Seat, Skoda, Bentley, Lamborghini and Bugatti). Porsche Holding is wholly owned by the Porsche and Piëch families. The IT organization of Porsche Holding, Porsche Informatik GmbH, is responsible for continuous IT operations of the holding company and serves as an application service provider for the company's subsidiaries and the dealership network.

THE CHALLENGE

High availability, fast data service and high flexibility for the automobile trade

If the description 'complex' applies to IT environments, then it certainly does to the central data centers of Porsche Holding in Salzburg and its surroundings. The business processes for the wholesale and retail trade in automobiles and for the financial services of Porsche Bank-Insurance are reflected in an infrastructure that not only serves the subsidiaries but also the dealership network, with more than 7,000 users in

Austria, Southern Bavaria and Southeast Europe. Seven hundred servers running three different operating systems are used for production data, testing and quality assurance. More than half of these servers are virtualized using either VMware ESX Server or logical partitions (LPARs) for IBM p-Series systems.

Cross 2 is the core application for the retail business. It covers all retail trade processes and is considered "state-of-the-art" throughout the industry. Like most of the applications at Porsche, Cross 2 is based on Oracle. The main wholesale application includes spare parts for Central and Eastern Europe, which Porsche Holding supplies for all the VW Group brands. New car orders to the factories are also handled by a specific integrated Porsche Informatik application. As soon as a dealer boots up his client in the morning, the system connects to the central IT service in Salzburg. Scheduling a car service appointment, ordering spares, writing bills or setting up a purchase agreement – all data streams come together in Salzburg, where they are processed, saved and transferred back to the car dealer ready to print out. Numerous interfaces ensure the smooth flow of data in a system whose content changes constantly – and which is itself updated every few months in its server and client versions.

“Porsche Informatik software works according to the TDI principle: increase engine efficiency with reduced use of resources. Performance is improved across the entire engine range. The same can be said of NetApp.”

Anton Spitzer

Manager Infrastructure Services, Porsche Informatik GmbH

Faced with this intensive activity, a high level of availability, rapid data service and great flexibility are what really matters in order to meet new challenges, such as country-specific legal requirements, quickly and cost-effectively. Porsche Informatik has redefined the answers to these challenges.

THE SOLUTION

NetApp Unified Storage for every eventuality

The key parameters for a new business continuity solution were clearly outlined and innovative proposals were expressly requested. Only one vendor questioned the prescribed scenario – data mirroring between the two sites – and presented alternatives. “NetApp’s concept appealed to us immediately as we were able to achieve more, with less effort and lower costs,” said Anton Spitzer, Manager Infrastructure Services. “The former active-active mirroring of data was not effective for us. It involved a lot of effort and in case of an emergency, the fail-over to the data mirror had to be initiated manually. With our decision for NetApp, we have not only introduced a new storage architecture but also a new philosophy of data management.”

All the promises made by NetApp were met and put into practice. In collaboration with NetApp Star Partner Stemmer and NetApp, the system and structure were set up on

schedule over a period of six months. A benchmark setup and best practices helped with the actual implementation, such as the integration of the databases virtualized with IBM LPAR into the Snapshot routines of NetApp SnapManager.

The concept of synchronous data mirroring between the two data centers was abandoned. Instead, to ensure business continuity, Porsche Informatik has introduced a storage scenario that on the one hand combines high availability and disaster recovery and on the other hand makes data management simpler and more flexible.

A NetApp FAS6080 HA storage system with 68 terabytes of storage capacity has been set up as a central pool for literally all application data, not only databases but also file services, web applications, Lotus Notes and an SAP environment for HR and finance. NetApp MetroCluster software ensures system reliability at a distance: The two systems are located in separate fire compartments at the primary site. Switched data paths between servers, hard disk units and storage controllers ensure continuous availability. As part of this concept, half of the HA storage system can be easily relocated without interrupting productive operations – a major advantage in view of the scheduled transfer of the infrastructure to a new data center.

The secondary site with an identical server environment has been turned into a disaster recovery site, with a two-stage protection process made up of backup-to-disk and subsequent automated tape backup. A NetApp FAS6040 HA system serves as secondary storage. The advantage: In the event of a total failure of the primary site, operations can be taken over by the disaster recovery site so that business continuity is ensured.

BUSINESS BENEFITS

Flexibility, simplification, performance

Since its beginnings in 1966, the IT infrastructure of Porsche Holding has evolved into a complex landscape. With NetApp storage and data management, the company now benefits from an entirely new level of flexibility, simplification and performance.

“The complete storage environment can be managed by just two people without any external assistance. As a comparison, we have a team of 75 for the overall infrastructure,” explains Spitzer. “Administration is simple using a single set of software, and was easy to learn during the migration. In addition, there is free choice when connecting to applications. We are no longer always obliged to use Fibre Channel. With NetApp’s additional support of CIFS, iSCSI and NFS, we have more alternatives, so that storage provisioning is quicker,

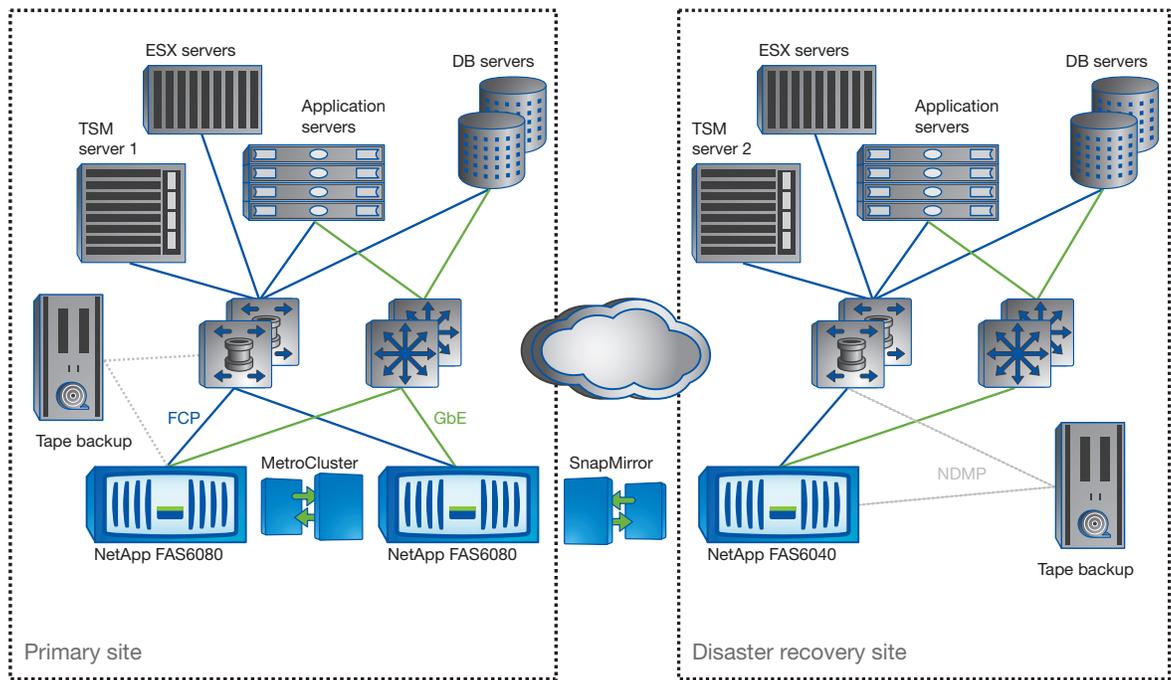


Figure 1) NetApp unified storage as the central data platform at Porsche Informatik: high availability, high performance and business continuity.

simpler, and more cost effective. And other applications such as the file services can be consolidated as well.”

With its consolidation on NetApp systems, Porsche Informatik can apply NetApp solutions for data protection to all applications. NetApp Snapshot technology provides fast, automatic Snapshots of a data set and forms the basis for reliable backup, replication, quality assurance in the database environment, restore and data recovery within a fraction of time. The online supply chain of Porsche Holding is critical to the company. Snapshot technology in conjunction with the fail-safe and robust nature of the FAS systems guarantees the rapid resumption of operations after any interruption.

The difference between NetApp Unified Storage and the former storage is clear for the 100-plus software developers at Porsche Informatik: The speed of the data service is as impressive as the rapid provision of storage capacity for the application development associated with dealer management, billing, wholesale, communications and centralized archiving. The background is that NetApp FlexVol software virtualizes data storage. Hard disks appear as pure storage capacity, with the result that capacity can be assigned and redistributed as required without interrupting

operations. FlexClone software is used to produce virtual copies of data sets for testing and quality assurance, without any initial use of storage capacity. Exporting the database is no longer a necessity. Interactions between the data for testing/quality assurance and the productive data are avoided with the aid of MultiStore, another NetApp virtualization solution. This is a critical point for Porsche Informatik, as data integrity of hundreds of databases has to be guaranteed.

Improved Total Cost of Ownership (TCO)

The simpler and more flexible infrastructure set up with NetApp Unified Storage and NetApp data management also impacts costs. The total operating costs (or TCO) of the storage environment are considerably lower than before. Factors such as storage efficiency by virtualization and deduplication, the appropriate use of FC or SATA disks, flexible automation instead of elaborate scripts and, last but not least, costs relating to capacity exploitation and usage, all contribute to this. Deduplication is successfully applied to the file services at Porsche Informatik. With 2 terabytes of files from Office and application development, over 20% of storage capacity has been saved. There are further savings resulting from software licensing with NetApp, which is not dependent on quantity. The license costs

for IBM TSM will also be reduced, as tape backup has been reduced by 50%.

Thanks to NetApp Operations Manager, the storage administrators have a more detailed insight into storage capacity utilization. Porsche Holding charges its dealers a monthly flat rate for use of the service, including disk space. Internal inquiries are charged to cost centers according to activity and storage consumption. Prices can now be calculated more precisely on the basis of usage data.

Other advantages include improved cost transparency and realistic expansion planning. Anton Spitzer expects the storage requirements of most applications to double over a period of 24 months. With NetApp, upgrades during ongoing operations are a routine task, involving neither advance planning nor downtime.

Positive customer response

As the “servant of many masters,” Porsche Informatik also has to satisfy many requirements. “We can provide and adapt our service and our range of solutions for the retail and wholesale trades and for financial services with less effort than before, because the overall complexity of the infrastructure has been significantly reduced,” says Anton Spitzer. “The simpler an infrastructure is, the more manageable and stable it is. NetApp

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helps us to set up the most cost-effective solutions for our customers and to simplify the management for our operators. In the end everybody wins. The fact that we are on the right path is also demonstrated by the thoroughly positive feedback from our internal and external customers.”

The managers at Porsche Informatik expect that it will be possible to solve any type of problem more quickly with the new storage infrastructure and to handle outages better. Considerably improved options for administration, evaluation and reporting will contribute to this equally, along with reduced complexity at simultaneously high levels of availability.

“Porsche Informatik software works according to the TDI principle: increase engine efficiency with reduced use of resources. Performance is improved across the entire engine range. The same can be said of NetApp,” summarizes Anton Spitzer.

SOLUTION COMPONENTS

NetApp

FAS6080 HA System (primary)
FAS6040 HA System (backup)
NetApp MetroCluster Software
NetApp SnapManager for Oracle
NetApp SnapMirror
NetApp FlexVol
NetApp FlexClone
NetApp Snapshot
NetApp Operations Manager
NetApp MultiStore
NetApp File Storage Resource Manager

Protocols

FC
iSCSI
CIFS
NFS
NDMP

Environment

Informix
Microsoft SQL Server
Oracle
SAP
Lotus Notes
File services
IBM Tivoli Storage Manager
Microsoft Windows Server
SuSe Linux
IBM AIX LPAR
VMware ESX

Partner

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