Bilfinger increases the flexibility of its data centre with HPE Flexible Capacity and HPE storage

Service provider uses HPE 3PAR StoreServ with HPE Flexible Capacity

Objective
Installing a highly available storage solution that would be flexible, scalable and cost-effective

Approach
Comparing a range of different manufacturers that could offer both a hardware solution and a service model

IT Matters
• Less management required from the IT team as no third party tools are needed to enable the transparent failover between the two storage systems

• Stable storage infrastructure

Business Matters
• Business-critical data remains highly available even if part of the equipment fails as the company now runs HPE 3PAR Peer Persistence software

• The costs for the solution are transparent and easy to calculate due to the HPE Flexible Capacity model

• HPE 3PAR Thin Provisioning software has reduced the company's monthly storage costs

• The HPE Flexible Capacity service model enables Bilfinger to expand its storage system quickly and easily as needed

• Personal, comprehensive service from HPE reduces the Global IT department's workload

In order to cope with strong growth and the increasing centralisation of its IT systems, the Global IT team at Bilfinger chose to install a tailored, combined solution of hardware and services from Hewlett Packard Enterprise. It now has two HPE 3PAR StoreServ 7400 systems paid for using the HPE Flexible Capacity model. This system essentially equates to storage on demand.

Challenge

Flexible scalability without breaking the bank
As an engineering and service company, Bilfinger develops, constructs, maintains and operates equipment and buildings for the industrial, energy and real estate sectors. Its Industrial Department offers a range of equipment planning, construction, maintenance and modernisation services for sectors such as the oil and gas and food industries. Bilfinger is also one of Europe's leading providers of integrated property services, covering the entire lifecycle of buildings. The company's Building and Facility Department specialises in planning, constructing and operating energy-efficient, value-oriented properties.

> "The HPE 3PAR StoreServ has helped us achieve our objective of having a stable system that meets our company's performance requirements. The HPE Flexible Capacity model gives us complete flexibility to cope with future developments."
>
> – Jens Reimann, department head of data center, Bilfinger Global IT

Over the past ten years, Bilfinger has made a large number of acquisitions and become a much larger group covering a wide range of fields, predominately within the services market. The company is currently in a new phase of its development. Through its Bilfinger Excellence Programme, it is working to increase its efficiency and become more competitive.

Its initial focus is on strengthening its current business, but aims to progress to acquiring more companies to further accelerate its development going forwards.

One part of the Bilfinger Excellence Programme is the centralisation of its IT systems. As the company has made so many acquisitions over recent years, its IT structure had become very decentralised with a large number of different sites and systems to look after. To combat this, Bilfinger has established its new "Global IT" team, which it has tasked with standardising the IT landscape across the company, bundling together applications and reducing costs. This will ensure that all users within the group will receive high quality, cost-effective service in future.

"A key element of the central IT infrastructure for the entire company is a highly available storage solution that is both flexibly scalable and cost-effective," explains Jens Reimann, department head of data center, Bilfinger Global IT. Bilfinger had been using a storage solution paid for using a capacity-on-demand model for just this reason for many years. "The storage solution we originally purchased was not flexible enough to cope with our company's development. A few years ago, we were one of the first companies to use this kind of purchasing model. There were only a few providers back then, but today the landscape is completely different," says Reimann.

Solution

Combination of hardware, integrated software and a service model

Both of them chose the same option - two HPE 3PAR StoreServ 7400s for the two separate data centres, paid for using the HPE Flexible Capacity purchasing model. Reimann continues, "The price Hewlett Packard Enterprise offered us was acceptable, and the technology both suited our budget and provided a number of clear benefits for our IT systems."

For Reimann, the two key technological features of the HPE 3PAR StoreServ are the HPE 3PAR Peer Persistence software and the HPE 3PAR Thin Provisioning software.

HPE 3PAR Peer Persistence provides an automatic, transparent failover between the two data centres so that data remains highly available even during planned or unplanned downtime and users are not affected. "Our research showed that the HPE 3PAR StoreServ was the only solution with transparent failover out of the box. If we had gone with another provider, we would have had to implement a separate solution. Also third party tools make that an incredibly complicated process," explains Reimann.

The same applies to the HPE 3PAR Thin Provisioning software. This solves the problem of inefficient capacity utilisation by breaking the traditional link between allocated and purchased capacity. Instead of having separate storage pools, the software creates a single pool whereby the capacity is only dedicated when the data is actually written. While other thin provisioning implementations work with large allocation sizes, ranging from 1MB to 17GB, HPE 3PAR Thin Provisioning uses allocation sizes of 16KB to increase the efficiency of the system. "The Thin Provisioning software has enabled us to substantially reduce the data volumes on our storage systems. This saves us a huge amount of money each month under the HPE Flexible Capacity model," says Reimann.

With the HPE Flexible Capacity model, Bilfinger only pays for the data volume actually stored on the HPE 3PAR StoreServ each month. Based on analysis of the existing data volumes at Bilfinger, HPE fitted the two systems with 110TB of storage space each. There is also a 25TB buffer which the company must only pay for if the resources are actually used.

Benefit

A stable storage system and comprehensive service

"We no longer have to worry about running out of storage capacity. HPE monitors what we're using and lets us know if we're in danger of reaching our limit," says Reimann. Bilfinger is in constant contact with HPE, not only to discuss all of the company's questions regarding capacity planning and management, but also for support issues and technical adjustments such as firmware updates. The companies hold monthly meetings at Bilfinger's offices to discuss these. HPE has also assigned two of its staff, one technical and one business expert, to act as personal contacts for Bilfinger and resolve any issues regarding the HPE 3PAR StoreServ and the HPE Flexible Capacity model.

"The level of service we receive from HPE far outperforms other providers in this field," says Reimann. "Our systems are assigned to dedicated HPE staff members who look after our storage environment both reactively and proactively. That simplifies our jobs enormously. It's a truly effective solution." Any issues discussed during the meetings are worked through and resolved to deadline.

Customer at a glance

Hardware
• HPE 3PAR StoreServ 7400

HPE Services
• HPE Flexible Capacity

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Bilfinger

Bilfinger SE is a leading international engineering and service company. Boasting comprehensive technical expertise and the experience of almost 60,000 employees, the company offers tailored services for industrial equipment and real estate. Its Industrial, Building and Facility Departments bring in more than six billion Euro to the company each year.

German language support at night and over the weekend

The 24/7 service team are even available at night and on weekends. At one point after the installation, the company experienced a large IT issue for which the cause was unclear. Reimann remembers: "We wanted to exclude the HPE 3PAR StoreServ as the reason for the error, and we contacted the HPE support team at two o'clock on a Sunday morning. A German-speaking staff member answered and dealt with our query. With other manufacturers, you tend to reach a global support centre in India or the USA at that time of the week."

"The HPE 3PAR StoreServ has helped us achieve our objective of having a stable system that meets our company's performance requirements," says Reimann. "The HPE Flexible Capacity model gives us complete flexibility to cope with future developments within our company."

Bilfinger is predicting data volumes stored on the HPE 3PAR StoreServ to increase by approximately 20 per cent per year. Around 30 per cent of the previously decentralised data stored at the company has now been moved to the two mirrored systems, and Bilfinger plans to increase this to around 80 per cent over the next few years. "In IT, you can never rule out a surprise problem coming your way. But with our new combination of a storage solution and service from HPE, we know we can react to changes as and when they happen," concludes Reimann.

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