**Hewlett Packard Enterprise**

# Neos meets the specific storage needs of a service provider

HPE 3PAR StoreServ 20850 Storage delivers vital performance and agility



## Objective
Deliver storage solutions that will support clients with high-availability, high-transaction systems

## Approach
Constantly watch the market to create future roadmaps that match solutions to client needs

## IT Matters
- Delivers a 30-fold improvement in operational latency

- Makes streaming I/O times five to ten times better with a four-fold improvement for random operations

- Dramatically reduces the time taken to fulfil customers' demands from many hours to just minutes

## Business Matters
- Delivers the agility, scalability and simplicity to meet the ever changing needs of many clients

- Reduces costs with deduplication rates of between 1:2 and 1:3 and provides customers with a better service per Euro than larger solutions

- Supports efficient business growth with a strong roadmap for the future

How does an IT service provider deliver storage solutions that will meet the varying needs of multiple clients? Performance and agility are often as important as capacity and Munich-based Neos has found the answer with HPE 3PAR StoreServ storage.

## Challenge

**Increased demands**
When an enterprise selects a storage solution for its own use it's a comparatively straightforward choice based on known or anticipated requirements. However, when a service provider must deliver storage for a variable number of large clients with differing needs, it's a more complex and unpredictable decision where agility and performance are as important as capacity.

Munich-based Neos plays in this league. This ten year old company started life as a business consultancy but since 2008 has moved into managed services, operating high availability, high transaction systems for some very big partners.

> "Hewlett Packard Enterprise 3PAR StoreServ storage gives us the flexibility and scalability to meet the ever increasing demands of our enterprise customers who know what they need and push very heavily to get best-in-class service. We believe that the 3PAR StoreServ storage devices we have acquired are part of a well thought out strategy from HPE and that gives us confidence in the future growth and direction that our customers will require."
>
> – Hendrik van den Berg, managing director, Neos

One of these is Amadeus which provides technology solutions to the airline industry and as a result many of Neos' end-customers are major airlines. Its current storage requirements are roughly 400TB and at a density of 1:1,000 Input/Output Operations Per Second (IOPS) for each terabyte, this equates to 400,000 IOPS.

"We provide the operational services of IT. We are responsible for ensuring that CIOs and application developers are able to deliver on the promise of agility and continuous deployment by bringing automation and virtualisation into what we provide. Like plumbers of the IT world, we enable these complex solutions to run smoothly," says Neos' managing director, Hendrik van den Berg. "We don't provide services at the low end. We're not in the volumes game. We provide services to customers who have very high requirements in terms of performance, availability and security."

Neos rents space in two Munich data centres connected by dark fibre. It also has space in a Singapore facility, which is used as a regional hub. With additional staff in Bangkok and Bratislava, it has built a global operations team across Europe and APAC.

"Because of the way we work we can support anyone in any country in those regions through remote management," explains van den Berg.

The way that Neos operates is to build flexible blocks of technology that can be easily rolled out to accommodate new clients or increased demands, and Hewlett Packard Enterprise solutions are core components. The relationship started some years ago with HPE LeftHand storage combined with the latest HPE rack servers and HPE BladeSystem c3000 then c7000 enclosures. Two years ago, the company moved from HPE LeftHand devices to HPE 3PAR StoreServ 7200 storage, then followed that with an additional 3PAR StoreServ 7400 system.

"The 3PARs were a natural progression for us in terms of the complexity of requirements from our customers. We've been following a roadmap where we are continuously expanding and moving up in terms of being able to supply specific requirements, but we needed a new storage device because our 3PARs were rapidly running out of space," says van den Berg. "With the need to support 50 per cent yearly growth in the business we had also started to move into a different ball game with even newer and higher challenges from our customers. We needed to take a big step up in terms of performance."

System requirements had scaled up by more than 300 per cent in 18 months due to the heavy growth of applications and data projects. With heavy streaming workloads on services like data warehousing, a new solution was needed to avoid hitting bottlenecks.

# 30x

Improvement in latency

## Solution

### Scalable agility

Neos has worked for many years with its trusted advisor, the HPE partner Kite Consult, and together they sought a solution that would continue to deliver the necessary performance and quality-of-service the business required. Their decision was to remain in the 3PAR camp with a new HPE 3PAR StoreServ 20850 Storage installation at one of the Munich locations. It has four controllers, expandable to eight providing up to 1.86 million IOPS. It's an All Flash array which enables Neos to step away from adaptive optimisation and gives it the capability to create a federation of storage devices, using the HPE 3PAR StoreServ 20850 as a core hub with the flexibility to move workloads around from device to device.

Among many business critical applications supported by the 3PAR are Oracle Database Real Application Clusters (RAC), Microsoft® SQL database management systems and solutions from Siebel, Informatica, Cognos and CEM Systems.

"Working with Kite, we are always evaluating other options in the market and in this particular case we were extremely convinced that the HPE technology was good enough to stand up against the competitors. The general architecture and buying strategy was in line with the best that is out there in the market," says van den Berg. "The 3PARs provide us with the ability to create a future roadmap with the flexibility to be able to meet changing and varying performance requirements from our customers."

"It also allows us to build business models from different components that provide an IT landscape to match what we require. HPE 3PAR StoreServ 20850 is also a huge step up in the sense of pure IOPS that you can distribute across the disks and that's important because our customers do not require space as much as high-levels of performance."

Florian Wanner, partner at Kite Consult adds: "We found that 3PAR was the right option, performance-wise because it provides all the enterprise capabilities that we require as well as speed and value for money. The idea behind our use of HPE 3PAR StoreServ 20850 is that you get away from tiering in terms of having different types of disks. We basically have one flat tier and this scales better from the operational aspect. The less operational burden and the less the complexity, the higher the reliability. It's all about simplicity and most of the aspects are handled by the 3PAR StoreServ itself without any administrative intervention. Just having one flat tier also enables us to use deduplication."

## Benefit

### Higher performance at lower cost

An important advantage for Neos is that this powerful and flexible storage infrastructure gives it the agility to meet the ever changing needs of a service provider. The time taken to fulfil customer performance demands has been dramatically shortened.

## Customer at a glance

**Applications**
Oracle Database Real Application Clusters (RAC), Microsoft® SQL database management systems and solutions from Siebel, Informatica, Cognos and CEM Systems

**Hardware**
• HPE 3PAR StoreServ 20850 Storage

**Software**
• HPE 3PAR Priority Optimization

"We can combine the HPE 3PAR StoreServ with other devices and move data around. It forms a very strong hub in the middle of the overall architecture. Linking the devices in this way increases availability and simplifies risk management."

– Hendrik van den Berg, managing director, Neos

With traditional methods it would take many hours or days to plan, followed by several days of change management and many hours to actually implement the change. HPE 3PAR StoreServ requires no complex change management. It takes a minute to read the ticket and five seconds to do. Deployment is also more straightforward, being achieved through a workflow as part of the standard operations.

Latency is another important area of improvement. In its early days, Neos was achieving eight to ten milliseconds on 10K but with Solid State Drives (SSD) this was reduced to about three milliseconds with mixed workloads. Now it's down to between 0.2 and 0.3 milliseconds, or 30 times better. Also, streaming I/O is between five and ten times better and there is a fourfold improvement for random operations.

Although this was not a major point for Neos, the Flash system also saves on power. It consumes 1.2KW to a maximum of 2KW at peak whereas the older 3PAR StoreServ 7400, which has the same capacity, consumes approximately 7KW. Two deduplication layers also reduce the amount of saved data achieving ratios of 1:2 up to 1:3 on top of thin provisioning gains.

"When we started with some of our customers they were just seeing storage as space. We have had to educate them that the data warehouse consists of quite a few different types of processes. Each of these has a completely different profile that must be matched in their storage and HPE 3PAR StoreServ has given us the ability to optimise the storage for these processes. By using HPE 3PAR StoreServ our customers can get a better service per Euro than they would get if they went for big machines. It's about being able to find a storage device that gives you an extreme level of performance but also scalability and the ability to manage the different workloads and storage together," concludes van den Berg.

"The HPE general storage evolution and next steps are in line with the philosophy that fits with our business direction and what we have to be able to offer our customers. It's a complete package that is the attractive part of this and we believe that the vision of HPE in this whole area of storage is what makes sense. It's what our customers require and it's what we require."

## Learn more at
hpe.com/storage

## Our solution partners


**KITE** CONSULT
We leverage your Business

## Sign up for updates

★ Rate this document

**Hewlett Packard Enterprise**