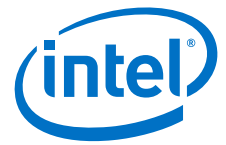


## Case study

# NForce gains an edge with HP ProLiant Scalable System



## Hosting innovator simplifies large storage deployments with HP ProLiant SL4540 Gen8 Servers

### Industry

IT hosting

### Objective

Meet customer demand for large storage environments with simple, cost-effective solution

### Approach

Deploy ProLiant SL4500 Scalable System with ProLiant SL4540 Gen8 Servers to enable petabyte-scale storage capacity in a versatile, easy-to-deploy, and easy-to-manage solution

### IT matters

- Reduced deployment time for large storage environments from two days to two hours
- Consolidated typical customer environments from two to three full racks to just two ProLiant SL4540 Gen8 Servers
- Allows customers to manage their hosted environments with fewer people and no need for specialized storage expertise

### Business matters

- Strengthened competitive advantage with unique offering that provides more storage capacity with less cost and complexity
- Saved hosted customers thousands of euros per month in rack space and reduced administration
- Versatile architecture protects NForce's investment and enables customers to expand at lower cost



**“The ProLiant SL4500 deploys quickly and easily, and gets our customers all the storage they need with great performance and no hassle. Our customers are very happy and it’s given NForce a real edge over our competitors.”**

– Pieter Taks, Chief Executive Officer, NForce Entertainment BV

Hosting company NForce Entertainment BV needed an easier, more cost-effective way to meet customer demands for large storage environments. By implementing the HP ProLiant SL4500 Scalable System, the company can now deliver petabyte-scale capacity in a fraction of the time and space. Typical customer environments are deployed in two to three hours instead of two days. And customers save thousands of euros per month in rack space while simplifying administration. All this has given NForce a powerful competitive advantage.

With NForce Entertainment BV, anything is possible. That's because unlike many hosting companies that offer pre-packaged environments in which size, speed, and storage are set by the hoster, NForce provides every customer with a fully customized environment based on its exact workload requirements. NForce's customers can specify every detail—from the chassis to the amount of memory to the number and type of disks. This unique business model provides optimal performance and efficiency at a very competitive price, including 24/7 technical support at no additional charge. It's no wonder NForce continues to enjoy 25–50% annual business growth around the world.

However, NForce's customers were increasingly requesting larger amounts of storage, primarily for web media and files. Traditionally, this required interconnecting numerous devices, which was both time consuming and expensive. When NForce discovered the HP SL4500 Scalable System, the company not only found an ideal solution for these customers, but also a powerful competitive advantage.

Pieter Taks, NForce's chief executive officer, comments, "We were looking for a solution to support large file systems without the cost, complexity, and performance problems that often result when lots of devices are connected together. The HP ProLiant SL4500 Scalable System met our objectives perfectly. To get the amount of disk capacity we now have in one server would normally mean connecting four or five servers with a lot of cabling, extra software to make everything work, and many hours of engineering time. Instead, the ProLiant SL4500 deploys quickly and easily, and gets our customers all the storage they need with great performance and no hassle. Our customers are very happy and it's given NForce a real edge over our competitors."

## Versatility to meet many hosting requirements

NForce deployed the HP ProLiant SL4500 Scalable System with 20 HP ProLiant SL4540 Gen8 Servers, each fully populated with 60 disk drives. NForce primarily uses four-terabyte SATA drives to maximize capacity but also configured some of the servers with solid state drives (SSDs) for hosting customers requiring higher I/O performance. The ProLiant SL4500 chassis also provides a 40-gigabit InfiniBand connection and 10-gigabit Ethernet uplink. Customers typically run either Red Hat Enterprise Linux or CentOS operating environments. This versatile, well-equipped solution enables NForce to meet a wide range of customer needs.

For example, one customer needed to keep large numbers of thumbnail image files in cache for quick loading onto its website. Traditionally, the files were stored in memory, but if the server was rebooted, the files were lost and had to be reloaded. What's more, this approach required large amounts of memory, which was very expensive. With the ProLiant SL4540 Server, NForce enables this customer to cache its image files on SSDs configured in RAID sets of six disks each, rather than using memory. In fact, the customer was able to load its entire website onto the SSDs, resulting in even higher performance and availability at lower total cost.

Another NForce customer uses the ProLiant SL4540 Server for mirroring in a virtualization cluster. The customer connects two ProLiant SL4540 Servers in a cluster using the onboard 40 Gb link to enable high-speed communication between both servers. Each server is configured with a mix of SATA and SSD disks to optimize performance and high capacity, and also maintains connectivity with customers' private clouds using the server's 10 Gb uplink. In this configuration, if one server should go down the customer can continue to run its business on the other server with no disruption.

## Customer at a glance

### HP Hardware

- HP ProLiant SL4500 Scalable System
- HP ProLiant SL4540 Gen8 Servers

### Software

- Red Hat Enterprise Linux
- CentOS

“The ProLiant SL4540 filled a critical gap in our offerings,” says Taks. “In the past we never had a solution with more than 24 disks. Having 60 in one unit is insane, and with all SSDs we can double that. That’s why we could market this solution so easily—no competitor has anything close to it. Where else could you get so much storage with the speed of a server?”

He also points out that customers are now interested in the ProLiant SL4540 Server for more than just large storage requirements. “We’re seeing more and more customers turning to the ProLiant SL4540 as a general purpose server solution. They are using it for backup. It’s proving to be ideal for cloud storage. With the high I/O performance, customers even use it for database storage. There’s no end to the possibilities, and that’s great for helping us grow our business.”

## Simplified deployment and management

With the HP ProLiant SL4500 Scalable System, NForce can respond to customer requests faster than ever before. With servers installed, the company simply adds disks as needed. When a customer requires even more storage, NForce can simply deploy additional servers.

Taks explains, “Before, if a customer needed 100 terabytes of storage, we had to do a lot of planning. We had to figure out how many devices, how to connect them, install the right software. Once we had everything figured out, it could easily take another two days to have everything up and running. Now, with the ProLiant SL4500, we can get customers going in two or three hours. That’s a great selling point.”

The ProLiant SL4500 Scalable System also makes life easier for NForce’s customers—and it helps save them a lot of money.

Customers often had to dedicate multiple storage experts to work on the systems and software necessary to spread data over numerous devices. Now these customers only need one person to set up a ProLiant SL4500 Server. No specialized storage expertise is required.

In addition, customer environments traditionally consumed two or three full racks in NForce’s operations center. Now they get the equivalent capacity in just two ProLiant SL4540 Servers.

“Our customers are saving a couple thousand euros per month in rack space alone,” reports Taks. “They can also save on software licenses because they don’t have to run as many servers. Combined with fewer people needed to manage the systems, the potential savings for our customers are huge.”

## Innovation for the future

Looking toward the future, Taks sees even greater opportunities for NForce and its customers, thanks to the versatility of the SL4500 Scalable System and HP innovation. “The beauty of the ProLiant SL4500 is how easy it is to swap out disks. When HP comes out with higher-capacity disks, we can just upgrade them in the same chassis with no need to invest in additional servers. That protects our investment and keeps costs down for our customers.”

He adds, “The power of HP is they’re continually investing in the future. While others are just looking at what’s on the market today, they’re looking beyond the market. That’s how NForce can always keep our customers happy. They want the best of the best, and with HP we’ll always have something new coming out to satisfy that demand.”

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