Intelligent storage with almost infinite scaling

Communications and advertising agencies, as well as other media service providers, often create and process large volumes of data for their customers. This companies usually have high data se‑curity requirements. Central and reliable storage of unstructured data is also essential for a Berlin advertising agency served by MSP AG. Video editing data, presentations, photos and designs also generate large volumes of data. The agency, which currently employs about 150 creatives and pro‑ject managers, meets those challenges with **Qumulo**. The modern scale‑out storage system was developed from scratch up for the new era of multi‑petabyte data scaling. The advantages over pre‑vious file storage include scalability up to 9 exabytes, lower costs, less administration, and improved performance.

Initial situation: Strong data growth and a lot of hardware

The agency's data was previously provided via five hosts and stored on one storage (3PAR). Replication is primarily used for disaster recovery of data. Failure scenarios such as this are usually cost‑intensive, as additional servers/hardware and licenses are required. In the case of our customer, an additional server including a second storage system would have had to be purchased. In addition, the old storage would also have had to be expanded, as the data volumes had increased significantly and would have continued to do so in the future. An additional downside of upgrading the existing hardware was the fact, that HPE already announced the 3PAR end‑of‑life.

To make things worse, the large amount of windows file servers created a big overhead due to administrational maintenance an updates. While hard drives were kept adding hen‑ce the increasing capacity needs, the computer power remained the same. This data sto‑rage concept, implemented five years ago, was no longer „state of the art".
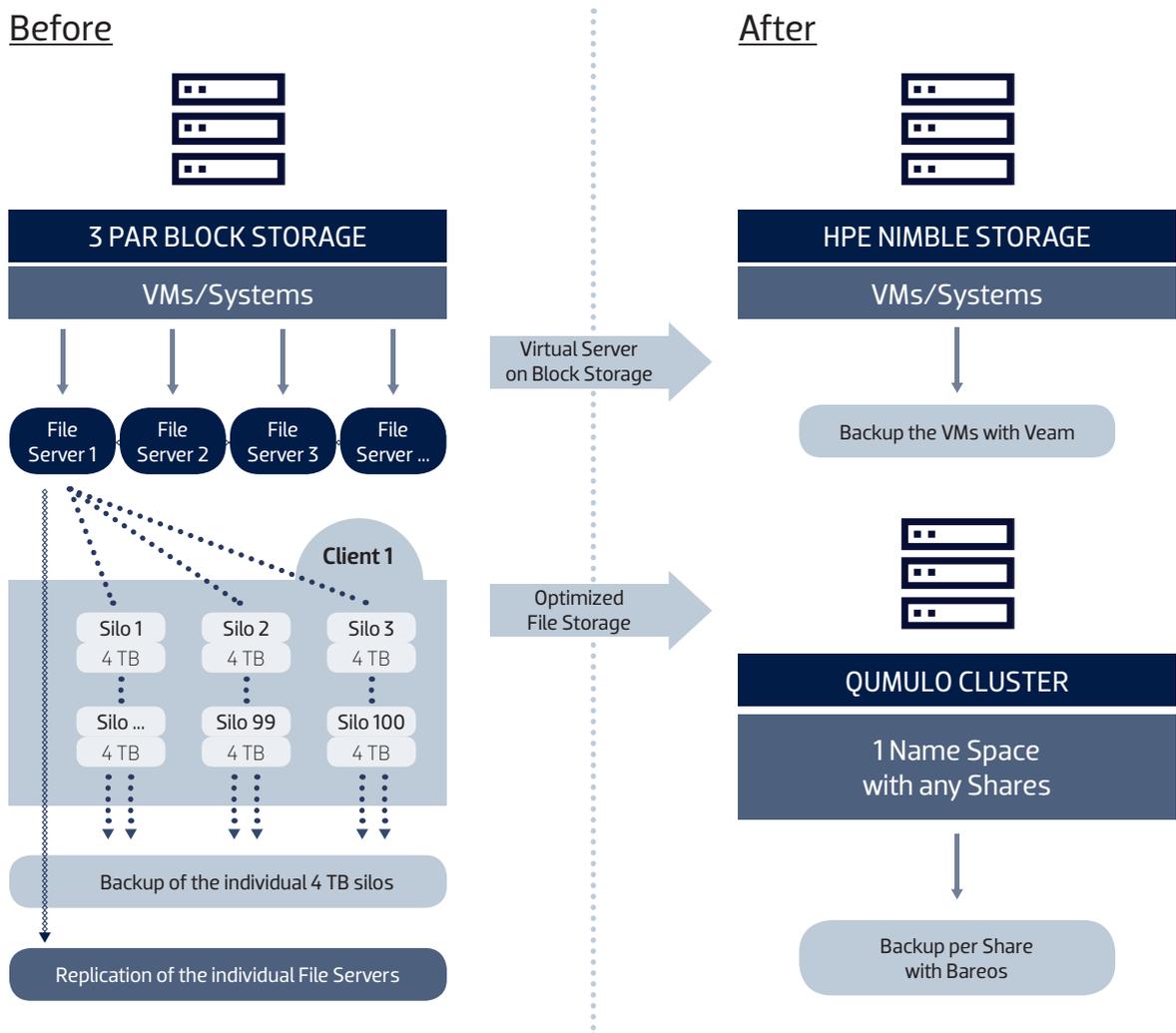
Challenges at a glance

> Strong growth of unstructured data vs. moderate growth of systems
> Growing number of file servers, silo formation and high maintenance overhead
> High volatility of unstructured data
> High reserves required due to silo formation within storage logic
> Compliance with back‑up windows
> High dependency of file services on vSphere, therefore replication of file servers to another host with large internal storage
> High complexity and licensing costs
> Existing storage system end‑of‑life
> High migration effort to the next storage generation

Solution: Move to Qumulo scale-out storage and HPE Nimble

MSP AG developed a concept that allowed the agency to make a cost-neutral switch to a new storage system (consisting of a Qumulo cluster and HPE Nimble). Summarizing the cost for expensive maintenance renewals, upgrades and administrational overhead, switching to a brand new technology was realized with neutral investment.

With Qumulo, our customer now relies on network storage that is independent of operating systems and functions purely for file access. The administrative effort is also because the data is stored and backed up centrally. Scale-out storage is ideal for the agency's unstructured data. Impressive perfomance and almost infinte scalibility handle even demanding workloads seemingly effortless.

Before

3 PAR BLOCK STORAGE

VMs/Systems

| File Server 1 | File Server 2 | File Server 3 | File Server ... |

Client 1

| Silo 1 4 TB | Silo 2 4 TB | Silo 3 4 TB |
| Silo ... 4 TB | Silo 99 4 TB | Silo 100 4 TB |

Backup of the individual 4 TB silos

Replication of the individual File Servers

Virtual Server on Block Storage

Optimized File Storage

After

HPE NIMBLE STORAGE

VMs/Systems

Backup the VMs with Veam

QUMULO CLUSTER

1 Name Space with any Shares

Backup per Share with Bareos

The scale-out principle: A large number of storage server nodes work together as an overall system. The capacity of this modular architecture can be increased as required with additional nodes and thus adapted to demand. Each node has its own computing unit. Performance therefore increases as the system expands.

The new storage system ensures a high level of reliability for our customer. The data is distributed across five nodes. High tech erasure coding allows up to two disks per node or even an entire node to fail, without system interruption. The back-up in the event of a catastrophe – i.e. a failure of all nodes combined with a data loss – is secured via a **plug-in to the backup software Bareos** developed by MSP.

The agency continues to use the existing, now significantly less loaded hosts for databases and systems such as project management and creative tools. The new block storage (HPE Nimble) combines the benefits of advanced flash storage and predictive analytics. For example, the Nimble recognizes which data is used frequently and makes it available particularly quickly. Added to this is an aggregated backup for virtual machines and files with Veeam.

> *„The most important thing for us was that our systems run quickly and securely despite large amounts of data. A big advantage is that all the files are in one place and not distributed across countless servers."*
>
> (Managing Director, Berlin agency)

Advantages at a glance

› **Practically unlimited capacity and performance (scalable up to 9 exabytes in size)**
› **Lower costs for physical servers, backup and virtualization software**
› **Lower costs for licenses and maintenance**
› **Fewer servers and easier administration**
› **Improved performance, more agility and less complexity**

Further Advantages:

› Eliminate overhead, siloing, and the need to copy data back and forth between storage classes
› Fast onboarding of new customers
› Reduced load on existing servers (as files are provisioned independently of other servers via Qumulo)
› Increased flexibility: add new storage nodes within a very short time and without customization
› More time for core tasks and further development for users and IT
› All from one provider: MSP is the central point of contact for the entire infrastructure
› Individual additional functions, such as the backup developed by MSP

You would also like to benefit from these advantages?
Call us and arrange a non-binding trial!

› **+49 40 31 99 16 19-200**