

Ille accelerates archive access thanks to HP storage systems

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Objective:

The storage system capacity at Ille Papier Service GmbH was no longer sufficient for its Enterprise Resource Planning (ERP) application. Also, response times for the archiving solution were too long and no longer acceptable. This needed to change.

Approach:

The company decided to renew the memory infrastructure and archiving solution in conjunction with its long-term partner ProLan. It is now using the HP StorageWorks Enterprise Virtual Array (EVA) 4400 and two HP ProLiant DL380 G6 servers. The previously separate storage systems have now been merged to form one large storage pool, with the option of additional expansion. Using iCAS, the archiving middleware developed by iTernity, made it possible to transfer long-term jukebox archives onto hard disks.

IT improvements:

- Storage capacity has more than doubled from 2 to 4.8 TB.
- Two parallel fibre channel switches guarantee system stability. The HP StorageWorks EVA 4400 connection is highly available.
- Access times and the data access flow-rate have been upgraded to 4 GB.
- The archive system is accelerated by transferring Magnetic Optical (MO) discs onto hard disks and accessed in real time.

Business benefits:

- The consolidation of the storage systems ensures greater efficiency in administration and the allocation of the storage to the business processes.
- Incorporating the archive system into the storage infrastructure made additional storage media superfluous.

HP customer case study:

Ille has consolidated its Enterprise Resource Planning (ERP) storage and archiving system and integrated them in an HP StorageWorks EVA, with an iTernity Compliant Archive Solution (iCAS)

Industry:

Manufacturing



Ille Papier-Service GmbH (Ille) supplies sanitary products for toilet facilities in hotels, restaurants and other public buildings. The medium-sized company from Altenstadt in Hesse, central Germany, has 11 domestic service sites, as well as additional subsidiaries throughout Europe. It supplies its products to approximately 24,000 trading partners across the globe, achieving total sales in 2009 of €45 million.

The company relies on the Microsoft Dynamics ERP solution (formerly Navision) to conduct its business processes while documents are archived using Saperion. The company previously used an HP StorageWorks Modular Smart Array (MSA) 1500 storage system to store ERP system data and the archive information from Saperion was stored on a jukebox system with MO media.



Increased data volume requires more capacity

Whilst Ille has expanded, the data volume has also continued to grow. "At this moment in time the volume of data we have in Microsoft Dynamics is growing by approximately 3 GB each month," confirms Timo Kaufmann, IT Systems Administrator at Ille. "We are even expecting an increase in data volume of 5 GB per day in future. A renewal of the storage system was therefore unavoidable. To facilitate the continued expansion of our business activities we began our search for a new storage concept with greater data volume and future-oriented expandability." The idea was to retain the present ERP system as well as the Saperion archiving solution.

Performance shortfalls

Ille planned to renew the HP storage with a greater storage volume for storing Microsoft Dynamics data. The same also applied to the Saperion archive data which was previously stored on MO media. This raised a number of questions. How future-oriented are jukeboxes? Who will supply the media, and how long are they readable or writeable? To what extent will they continue to be supported by the software systems in future? One drawback of jukeboxes is their long access and loading time. In the past, performance shortfalls at Ille were commonplace when it came to accessing jukebox media. "It would sometimes take several minutes before an authorised user could view the required document on the screen," remembers Timo Kaufmann. As the required storage medium often had to be loaded from the jukebox beforehand it was not possible to accelerate this process.

The need for system stability

As part of the IT infrastructure refresh the entire system was renewed and upgraded. In future there needed to be a guarantee that employees will not be interrupted in their operations by IT breakdowns.

In order to test the future reliability, the technical developments and expandability of the jukeboxes, Timo Kaufmann contacted his long-term IT partner, ProLan Computer GmbH, as well as Saperion. Saperion does not supply storage systems itself, but it relies on storage systems on the market to store data. Saperion-certified iCAS technology emerged as the ideal solution for Ille, as it enables the company to use HP StorageWorks products for audit-proof archiving.



Modular storage allows for flexible expansion

The original plans involved a 1:1 replacement of the two existing storage systems with two new ones. Ille based its original planning on the use of an HP storage solution for Microsoft Dynamics and an additional NetApp solution for the Saperion archive data. This, however, would have resulted in two separate storage systems, and consequently two different administration tools.

In order to simplify the storage operation and its administration, Ille decided to consolidate the archive data with the ERP data on a combined system. However, the challenge was not in the act of storage itself, but in ensuring audit-proof data archiving, in accordance with statutory requirements.

Audit-proof storage on hard disks

Solutions were also found for these requirements. Using the archiving middleware iCAS running on an HP ProLiant DL380 G6, the archive data can be stored legally, and in accordance with guidelines, on HP StorageWorks hard disk systems. There was therefore nothing preventing the consolidation of previously separated data onto one system.

"This seemed to us to be far more future-oriented! Instead of having to continue operating and managing two different media and technologies we were able to implement our storage and archiving requirements with one system," comments Timo Kaufmann.

Today a central HP StorageWorks EVA 4400 storage system, with 4.8 TB gross capacity ensures sufficient reserves and uniform storage management. A high-capacity storage connection to the server systems is guaranteed by a dual controller array with two parallel 4 GB fibre channel switches M6412-A and a fibre channel drive enclosure in connection with the HP 8/8 base. Data is then transferred across the local network via a 1 GB cable.

ERP and archive data mapped via a storage system

Today Timo Kaufmann is happy to have all of his eggs in one basket. In future the archive data from Saperion and the Microsoft Dynamics ERP business data will be combined into one storage system. At the same time this consolidation of data ensures greater capacity utilisation as free space can be made available on the storage unit of both systems. In order to accelerate the operation of Microsoft Dynamics, the servers have also been updated. Now two HP ProLiant DL360 G6 servers with 2x Xeon X5550 Quad Core 2.66GHz Processors guarantee sufficient processing power and fast responses. The Navision control system now also runs on one system. To provide the necessary system stability, a second system with identical hardware is intended to deal with faults exclusively. These also have access to the HP StorageWorks EVA storage system.

For Timo Kaufmann, the option to gradually expand the HP StorageWorks EVA, and thereby adapt it as best as possible to Ille's storage requirements, was of particular importance.

"One of the most important requirements of the storage infrastructure upgrade was for us to also be able to meet our requirements in future," he confirms.

Help with the transfer from our partner

The planning, as well as the actual implementation was carried out in cooperation with Ille's long-term IT business partner, ProLan Computer GmbH. Ille's IT experts took care of the basic installation of the systems and set up the operating systems. The ERP system was subsequently added, as well as the SQL server in its basic configuration. The final stage was the installation of Microsoft Dynamics and its connection to the HP storage system. The configuration of the Saperion connection was activated remotely by Saperion. iCAS was also configured remotely by the archive specialist iTernity, and was connected to Saperion as well as to the storage system.

Customer solution at a glance:

Primary applications:

- Microsoft Dynamics
- Saperion

Primary hardware:

- HP StorageWorks Enterprise Virtual Array (EVA) 4400
- HP ProLiant DL380 G6 Server for iCAS and Management EVA
- HP StorageWorks EVA 4400 Dual Controller Array
- HP Universal Rack 10642 G2 Shock Rack 19" rack cabinet
- HP USV R5500 VA with extended battery
- HP UPS Management Module
- HP FC2242SR PCIe DC HBA, 1 unit
- HP M6412-A Fibre Channel Drive Enclosure, 2 units
- HP 8/8 Base (0) e-port SAN Switch, 2 units
- HP 4 GB Short Wave B-series FC SFP 1 Pack, 18 units
- HP 300 GB 10K FC EVA M6412 Enc HDD, 16 units (4.8 TB gross capacity)

Primary software:

- HP StorageWorks Command View EVA 4400 Unlimited LTU
- iTernity Compliant Archive Solution (iCAS)

HP Services:

- HP CarePack 3 years, 24x7

The transfer of data from the existing HP StorageWorks MSA 1500 to the new HP StorageWorks EVA was implemented using the prepared SQL server data storage options.

The conversion itself was seamless and virtually fault-free. Users were required to complete their tasks by 3pm. The last data amendments were then transferred to the new system and the new environment was activated that same night.

The existing archive data was transferred from the jukebox to the new storage system directly after the implementation of iCAS in the day-to-day operations, without it having to be administered via Saperion.

Timo Kaufmann is impressed with the conversion and he concluded: "We don't regret switching to HP StorageWorks EVA 4400 and HP / iCAS. Access times to data have been reduced from minutes to seconds. Furthermore, administration is now far easier. Previously, our technicians had to work with two separate management tools - now they can use one single tool. Service is also easier and clearer. Instead of having to contact two separate technicians, as was the case previously, everything is much more centralised now."

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