



CASESTUDY

THE ZIEGLERSCHEN



Region / Country

EMEA / Germany

Industry

Healthcare

Company

The Zieglerschen

Use Case

- VDI – VMware® 6.5
- Database – Microsoft® SQL
(planned: SAP® HANA)
- ERP software – SAP

Business Transformation

The healthcare organization has replaced its existing storage environment with the FlashStack™ converged infrastructure solution. FlashStack offers better performance, reliability and future-proofing of business operations and hospital and nursing operations, from which patients benefit directly.

Challenges

- Provision a current storage solution to replace the previous platform, which was not future-proof.
- Achieve better storage performance.
- Reduce the need for administration and support.

IT Transformation

- The FlashStack solution accelerated time-to-value for the company's IT infrastructure projects. Physical management of the storage environment is now much easier.
- The storage environment is high-performance, and NVMe enables very high workload speed on flash arrays. Depending on the workload, data is processed much faster and SAP runs smoothly.
- Pure Storage's solution is characterized by significantly lower power and data center space requirements and better ease of use.





Modern data infrastructure for better patient cares

“Die Zieglerschen” is a healthcare organization headquartered in Wilhelmsdorf, Upper Swabia, Germany. Founded more than 175 years ago, the institution now operates clinics, senior citizens' centers, schools, facilities for people with disabilities, boarding schools, kindergartens, therapy centers, advice centers and much more at 60 locations between Stuttgart and Lake Constance.

"Nursing 4.0" is an important topic Zieglerschen is dealing with. Highly important are backup-as-a-service from the cloud, telephony from the cloud, highly sensitive sensor data acquisition and transmission, and the future security of services and locations through high-performance IT.

Nursing 4.0 has a direct effect on all services, and operation would be inconceivable without IT. "Our data center is indispensable here. The planning and

documentation of processes must be digital and secure, because medical data is extremely sensitive," explained Andreas Pohlmann, Deputy Head of IT and Technical Manager of the Data Center at Zieglerschen.

Zieglerschen's IT department consists of twelve employees and one trainee. As part of the planned modernization of the storage environment, they became aware of Pure Storage through the Gartner Magic Quadrant.

“Simplicity is the biggest plus of FlashStack and there's nothing like it. The effort for us is almost zero!”

ANDREAS POHLMANN

Deputy Head of IT Function and Technical Manager IT Computer Center





Impressed, they started to find out more about Pure Storage. With a five-year leasing cycle, the previous Hitachi solution would be out of date after a few years. Speed, cost, performance and scalability were data storage issues and challenges to overcome.

"We had good previous experience with a small flash system, but without deduplication and compression. That's why we wanted to use flash extensively and on a large scale," said Pohlmann.

"Everything is very intuitive, there is hardly any need for management. This allows us to better use our resources and team for innovation and more strategic tasks."

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The healthcare organization was looking for an enterprise storage solution in the form of a converged infrastructure that was easy to implement, maintain and scale. The functionality, capabilities, reliability and cost aspects all spoke in favor of Pure Storage, based on FlashStack as the solution. Cancom was chosen as Pure Storage's partner and provided good support to the IT team.

FlashStack: Future-Proof with NVMe

FlashStack is a converged infrastructure solution that

combines best-in-class technologies from two leading players — Cisco and Pure Storage — into a single, integrated solution. Cisco's UCS server and network technology combined with Pure Storage's all flash storage technology result in an integrated solution that can be used for multi-hypervisor, bare metal or container deployments. The highly efficient components reduce power, cooling and data center space costs. As a single, integrated architecture, FlashStack can be deployed quickly and lowers overall IT costs, which is helped by easy, uninterrupted maintenance. FlashStack is designed for





organizations looking for a simple, reliable and powerful converged infrastructure solution.

Pure Storage offers FlashStack in two main configurations, one based on FlashArray™ and the other on FlashBlade™. FlashStack, based on FlashArray with 100% NVMe, is designed as an enterprise platform for on-demand IT and the private cloud.

Prior to the introduction of NVMe, all flash arrays used an architecture originally designed for consumer

devices such as notebooks to locally manage storage capacity on a small scale. The array operating system is forced to communicate with flash over disk protocols such as SCSI and disk interfaces such as SAS and SATA. NVMe clears the way for a new flash architecture with the scalability needed for the cloud era. This results in higher performance and power density as well as improved efficiency. Instead of using SSDs, raw NAND flash with fast NVMe connectivity over PCIe allows the flash memory to communicate directly with the array operating system. The NVMe protocol eliminates the bottleneck to fully exploit the performance potential of flash.

Easy and fast implementation – FlashStack benefits were immediately noticeable

Zieglerschen’s IT managers opted for a FlashStack solution consisting of two FlashArray//X70 to benefit from the advantages of NVMe and to achieve future security. "The implementation

of Pure Storage was very simple and very fast. Everything went flawlessly right from the start, to our complete satisfaction," said Pohlmann. "NVMe is also great as it achieves very high speed with the flash arrays."

The FlashArrays of the FlashStack solution — 180 servers — are operated as virtual machines with VMware 6.5. The common workloads include SAP and special software for patient documentation and treatment planning. Microsoft SQL Server is currently being used on the database, and SAP Hana is planned as part of the SAP Roadmap. The configuration comprises 4 x 40 gigabyte storage capacity with transparent failover. This means that uninterrupted failover between the synchronous arrays/locations, including automatic recovery, is possible. Administrative tasks such as provisioning, snapshots and cloning can be performed from both sides of the mirror, which simplifies operation.

“Pure Storage means absolute future security for us and is simply a perfect solution, especially when it comes to reliability.”

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The advantages of the FlashStack implementation were immediately noticeable. Storage requirements were significantly lower than with the previous storage solution, while performance improved significantly. Most noticeable is the speed at which the processes are now performed. A faster and more efficient IT environment makes more resources available to patients and caregivers. Fast data access improves service quality and time saved can be used to better treat patients and caregivers. Patients benefit directly from the improved care resulting from the modernization of the data infrastructure.

Ease of use makes every day work much easier

"Since we handle everything ourselves in our own computer center in Wilhelmsdorf, we benefit immensely from the user-friendliness of FlashStack," said Pohlmann. "Simplicity is the biggest plus of FlashStack and there is nothing comparable available on the market. The effort for us is

almost zero! Everything is very intuitive, there is hardly any need for management. This enables us to better use our resources and our team for innovations and strategically more important tasks. Snapshots, for example, are extremely fast and simple, despite the size of two terabytes. We take a snapshot every 15 minutes to be prepared for ransomware, and then keep these snapshots for three days," explained Pohlmann.

The IT team uses Pure1® to monitor and report on the storage infrastructure and Purity® as the Pure Storage user interface. Storage management overhead has been dramatically reduced, and new revenue-generating

applications can be deployed much earlier. Reports can be created much faster. "The support effort has also been reduced by an estimated 90 percent. Even the trainee can already use the system," said Pohlmann. The head of the data center added: "Setting up new VMs, such as a clone, is a snap with FlashStack. The provisioning of new systems, for example for test/dev, is also very easy, so the developers also benefit. Integration with Veeam also ran smoothly and very quickly thanks to the Veeam plugin. This results in additional added value for the users. The Pure Storage platform is constantly modernizing itself and makes us fit for the future."





Pure Storage Means Absolute Future Security

Pure Storage also scores well with Zieglerschen when it comes to the total cost of ownership. "FlashStack is characterized by significantly lower power consumption and space requirements in the data center as well as ease of operation and has thus far exceeded our expectations," said Pohlmann. "Power costs have been significantly reduced due to lower

cooling requirements. The space requirement was reduced from a full rack to only four height units. We benefit in many ways from purchasing FlashStack, including numerous indirect effects. For example, the company has achieved a significant reduction in the number of access pages to clinical applications. Operation, maintenance and updates of central reports are much faster."

"Pure Storage means absolute future security for us and is simply

a perfect solution, especially when it comes to reliability. Everything works perfectly with Pure. The storage environment is high-performance, data is processed much faster depending on the workload, and SAP runs at top speed. Users are very satisfied," summarized Pohlmann. His conclusion: "We are extremely satisfied. FlashStack runs stable, fast and simple and is best-of-breed in its class for us. In short, Pure makes life easier for us. And working with Pure Storage is fun."

Products and Services

Unified Computing FlashStack:

- *Cisco® UCS® servers*
- *Pure Storage FlashArray*
- *VMware vSphere*

Cisco Networking and Security Solutions:

- *Cisco Nexus® switches*

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