

New security standard for the Klinikum Peine Datacenter



Klinikum Peine is a municipal hospital in Peine, Lower Saxony. With around 275 beds and 14,000 patients, the hospital is a high-performance medical center in the region. Between 2003 and 2020, the hospital was part of the AKH Group located in Celle. In October 2020, the district and the city of Peine took back the hospital as new owners. Since then, the separation from the hospital union with the AKH Group has been completed with great strides. A comprehensive reorganization of the IT infrastructure has been planned with the aim of ensuring the well-being of all patients as well as the performance and satisfaction of the employees in the future.



QUICK FACTS

PROJECT DATA

- Setup of a new datacenter infrastructure in containers
- Uninterrupted and secure data migration in the follow-up project
- Installation of a NetApp All-Flash MetroCluster
- Implementation of ransomware protection CryptoSpike by ProLion

ADVANTAGES

- Flexible datacenter in containers
- High availability of data
- High reliability and assurance of operation

INITIAL SITUATION and OBJECTIVE

The biggest challenge was finding space to set up a redundant datacenter. There was no suitable space available at the hospital and upgrading it would have taken too much time and resulted in very high costs. CANCOM offered a solution that solved the problem cost-effectively: the delivery of a fully-fledged datacenter in containers.

In view of the Hospital Future Act (KHZG), which is intended to improve the digital infrastructure in German hospitals, the hospital also attaches great importance to its own digitalization and IT security. CANCOM supported Klinikum Peine in this endeavor by implementing the NetApp All-Flash MetroCluster in combination with the security solution by ProLion, which now ensure a high security standard in the clinic.

REALIZATION

CANCOM supported Klinikum Peine in the reorganization of its IT - from the planning phase, through implementation, to ensuring smooth operation of the infrastructure.

Once the migration concept was finalized and the data completely detached from the hospital group, CANCOM supplied two high-security datacenter containers in each of which redundant IT infrastructures were set up. In terms of patient safety, the high availability of the IT infrastructure and IT security were of particular importance to the hospital.

To ensure data availability and security, CANCOM implemented a synchro-mirrored NetApp All-Flash MetroCluster with four active nodes. Several times a day, the metrocluster replicates the data into a third server room to another NetApp backup and disaster recovery system, so that the company is always prepared in the event of an emergency.

The snapshot technologies implemented in NetApp's ONTAP operating system ensure data protection and make historical data available again quickly without having to access the backup system. With the integrated cloning functions, entire data areas and applications are quickly made available for testing and quality assurance. This frees up a lot of time for the hospital's day-to-day business.

The rapid data growth in hospital operations is addressed by the efficiency technologies deduplication, compression and compaction. With the scalability of the systems, system expansions can be carried out without interruption. For example, in the future, cold data blocks can be offloaded from the All-Flash MetroCluster to less expensive, slower storage technologies without losing direct data access and high availability.

For IT security, CANCOM experts installed the ransomware protection CryptoSpike by ProLion. CryptoSpike is one of the leading ransomware and data security solutions for NetApp environments and can proactively detect attacks and block them without agents. The hospital can count on reliable, real-time 24/7 monitoring of threat indicators. As a result, the solution reliably prevents downtime due to encrypted data and consequently multi-week recovery times of compromised data.

SUMMARY and OUTLOOK

Like any medical facility, Klinikum Peine is faced with the task of securely storing, managing, and providing controlled access to an immensely growing amount of healthcare data. At the same time, there are high requirements in Germany for data security.

The container solution by CANCOM creates a solution that ensures secure as well as highly available operation and offers clinics a space-saving and sustainable way to operate a modern datacenter. By implementing the NetApp All-Flash MetroCluster, the clinic can rely on the availability of its data in the future, which is reliably protected against cyberattacks thanks to ProLion CryptoSpike. Plans are already in place to expand the scalable infrastructure.



„I am really happy that these two containers have been set up here today at such impressive speed. This is the decisive step for the modernization and digitalization of our hospital. It couldn't have gone any better.“

Dr. Dirk Tenzer, Managing Director of Klinikum Peine

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