



Driving innovation through modular IT

Virtualizing storage and separating its hardware and software enabled Braunschweig Municipal Hospital to boost infrastructure performance. Patients benefit from faster diagnosis, staff can work on the move, saving time and costs, and the IT team can advance innovation by developing modern medical apps. This IT backbone lays a firm foundation for healthcare in the region and showcases the clinic's pre-eminent role in pioneering the connected hospital.

About the customer

Braunschweig Municipal Hospital has around 1,500 beds, employs nearly 4,300 people and caters to a population of roughly 1.2 million. Its 21 clinics, ten independent clinical departments and seven institutes cover practically the entire spectrum of medical care. In-patient treatment is provided to over 65,000 people and out-patient treatment to about 200,000 people a year. The hospital's vision is to combine digitalization with top-class medical care.



Industry: **Healthcare**



Location: **Germany**



People: **4,300**



Web: dklinikum-braunschweig.de

Challenge

Braunschweig Municipal Hospital wanted to virtualize its storage and enhance infrastructure performance to combat slow data flows.

Solution

- Software-defined storage with VMware vSAN running on Fujitsu servers and storage

“We no longer just operate a healthcare system, we are also a driver of innovation, employee satisfaction and patient welfare.”

Norman Lüttgerding, CIO, Braunschweig Municipal Hospital



Pioneering the connected hospital

Braunschweig Municipal Hospital sees itself as an innovative healthcare provider and a pioneer of the “connected hospital” concept. Up to now, however, its IT department was unable to fully embody the role of digital innovator.

The hospital’s 35-strong IT team was suffering from high-volume IT operations, slow data flows and applications, and a chronic lack of time. “Hospitals in Germany are suffering from increasing cost and time pressure. IT needs to contribute to improve the daily work of our nursing professionals and doctors in order to leverage the quality of healthcare services as well as patient care,” explains Norman Lüttgerding, CIO, Braunschweig Municipal Hospital.

Meanwhile, the hospital was taking its first steps towards becoming a single hospital campus – so the IT team was also tasked with consolidating its three existing locations into two.

A flexible, modular platform

To consolidate its facilities, Braunschweig Municipal Hospital needed a flexible and modular solution. Already a long-standing customer of VMware, the hospital turned to VMware and its two partners, SVA System Vertrieb Alexander GmbH (SVA) and Fujitsu, to standardize the infrastructure and reduce complexity. The clinic has been a long-term Fujitsu customer with good experience in its product quality and reliability, and was already working with Fujitsu servers so opted to base the new data storage system on Fujitsu’s reference architecture.

The solution includes software-defined storage with VMware vSAN, plus a hyper-converged infrastructure as the first step toward realizing the overall SDDC vision, supporting end-user computing models. It links systems together, protects data, boosts agility and also cuts costs. Mobile work based on VMware Horizon is now a reality for staff at all of the hospital’s sites. They now have access to any enterprise application from any device.

“The goal of this project was first and foremost to improve the performance of failsafe features for mobile applications like SAP with the clinical information system, digital voice recognition and special medical devices,” says Jörn Bergmann from SVA.

Optimal uptime and performance

The hospital’s IT infrastructure must keep going even in the event of a power outage which can only be guaranteed by a well-thought-out IT service concept and failure-proof data centers.

“A data center failure at a hospital can put patients’ lives at risk. The new infrastructure gives us the best available defense against that,” affirms Florian Immenroth, Head of IT infrastructure, Braunschweig Municipal Hospital.

“For the people who work at the hospital, this kind of project becomes measurable when you need to make MRT or CT images available, for instance,” adds Lüttgerding. “What used to take several seconds is now done and dusted in an instant. Our fast SAP ERP system, combined with a clinical information system, enables doctors and nurses to access patients’ data on a tablet right at the bedside, thanks to a mobile ward trolley.”

This reduces unneeded stress in the clinicians’ work in the process. Patients and clinicians benefit from quicker diagnoses, processes and enhanced treatment, ultimately saving lives and resulting in a greater patient experience.

In collaboration with

vmware

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