

Case study

Highly secure backup data center at the University Clinic of Münster

»The data from 33 clinics and all the research institutions is available securely and reliably at the new backup data center. Data on patients, billing and research is archived to ensure that it is highly available and ideally protected against environmental influences and disasters.«

Gerd Schoon, Head of the Construction and Real Estate Division, University Clinic of Münster



Top-flight medical care enjoys distinguished world reputation

The University Clinic of Münster (UKM) is one of the largest and most successful maximum care hospitals. The UKM treats approximately 50,000 in-patients and 370,000 out-patients from Germany and abroad a year. More than 7,500 employees provide a wide range of healthcare services and at the same time ensure the highest quality of care. In its key disciplines inflammation medicine, reconstructive and cardiovascular surgery, prenatal, perinatal and reproductive medicine, neuromedicine and tumor orthopedics the UKM is one of the world's leading medical-therapeutic centers of excellence.

Holistic concept for the data center

The UKM has implemented a highly secure backup data center that meets the latest security standards and fulfills special demands for high data availability. The new data center is based on an end-to-end concept with power, air conditioning, access and fire protection. The server room is constructed as a modular protective cell that complies with the latest requirements for physical safety in accordance with DIN protection class 4102. All digital Xray and patient data is duplicated and stored there securely and in a fashion that ensures high availability. A redundant, scalable air conditioning system regulates cooling at the data center and rules out the possibility of failures in service provision or total system failures due to overheating of the server systems. And Fujitsu chose an end-to-end power concept in order to ensure an uninterrupted supply of electricity.

The customer

In its key disciplines the University Clinic of Münster (UKM) is one of the leading medical-therapeutic centers of excellence beyond the borders of Germany. www.klinikum.uni-muenster.de



The challenge

Backup and archiving of all relevant data, high availability of business data in IT operations, compliance with legislation governing the archiving of patient data, ensuring that data is available even in the event of a disaster.

The solution

Integrated power, air conditioning and fire protection concept for highly secure storage of clinic data.

The benefit

- Implementation of a key element in risk management thanks to highly available data storage
- Compliance with DIN 4102
- Solution for constant availability of data from 33 clinics and research institutions
- Digital, highly available archiving solution
- Optimum data protection
- Preventive monitoring
- Prompt warning of likelihood of faults or disruptions as a result of power failure, fire or overheating

Products and services

- Service concept to ensure an uninterrupted supply of power and its implementation
- Service concept for power, air conditioning, fire and access protection and its implementation
- Concept for fulfilling the requirements of DIN 4102
- Concept for meeting the demands for digital archiving

Steadily growing data stores

State-of-the-art medical equipment and qualified doctors and care are obviously crucial to a modern clinic, but there are things that are nearly as important that most patients and even hospital employees never see – such as the IT infrastructure. After all, the availability of data – from digital X-rays, data on patients and billing data for services – is indispensable for the smooth day-to-day operation of a clinic. And the volume of data is huge and constantly growing at an institution such as the University Clinic of Münster with its 7,500 employees, 50,000 in-patients and 370,000 out-patients a year. Rapid access to important information on patients can save lives – and definitely saves more time and space than archiving everything in paper form! And statutory archiving requirements also make demands on the clinic. Thus the clinic's goal was to rule out the risk of losing data and ensure impeccable high availability even in the event of a disaster.

Modular protective cell

That's why the clinic in Münster invested in a highly secure data center designed to fulfill the latest security standards and high availability requirements. Fujitsu assumed responsibility for its concept and for managing the project. The backup data center was equipped with power, air conditioning, fire and access protection on the basis of an end-to-end concept. One of its core elements is the server center, which is constructed as a modular protective cell and complies with the latest requirements for physical safety in accordance with DIN pro-

tection class 4102. In addition, cooling at UKM's data center is controlled as required by means of a redundant, scalable air conditioning system. Failures in service provision or total system failures due to overheating are thus prevented proactively. In order to ensure an uninterrupted supply of power, Fujitsu used an end-to-end energy system whose range of protection extends from the building right down to the individual server. Monitoring systems that enable prompt diagnosis of impending faults preventively keep a watch over the power, air conditioning and risk of fire at the backup data center. Gerd Schoon, Head of the Construction and Real Estate Division at the UKM, draws a positive conclusion:

"As a result, the risk of a total breakdown in our IT infrastructure as a result of data loss has been pretty well eliminated. The data from 33 clinics and the research institutions is available securely and reliably at the new backup data center. Data on patients, charging and research is archived in order to ensure that it is highly available and protected ideally against environmental influences and disasters."

The solution does more than just offer protection; it impeccably fulfills the requirements Münster set for physical safety – DIN 4102 – and legislation on data archiving. As a result, the employees at the University Clinic can all focus on their actual core tasks – caring for patients – and call up the necessary documents at a click of the mouse.

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