

Micro Data Centres in Clinical Data Operations

Hermann-Josef Hospital Erkelenz Prefers Custom Solution from SCHÄFER IT-Systems' Edge Data Centre Programme

Neunkirchen, 4th March 2024. The Hermann-Josef Krankenhaus (HJK) Erkelenz, an academic teaching hospital of RWTH Aachen since 2010, located in the Heinsberg district of North Rhine-Westphalia, is a privately-owned hospital with 409 planned beds. The space is limited, making a conventional solution infeasible. However, due to advancing digitalisation, investment was necessary in a powerful and future-proof IT infrastructure. The framework for this is provided by the Hospital Future Act. A particular focus is on digitalisation according to nationwide standards, aiming for a higher degree of networking within the healthcare system.

Like many hospitals, HJK Erkelenz has an IT landscape that has grown over many decades. Presently, about 600 client computers access 100 servers in the building. The large volumes of data are currently generated by three areas:

1. PACS (Picture Archiving and Communication System), a digital system for processing, managing, and archiving medical images (CT, X-ray, ultrasound, MRI)
2. Laboratory data
3. Patient data, such as reports and findings

Data protection and security are central issues in the healthcare sector, constantly engaging IT managers. The same applies to availability, for example, the reliability of the systems. Therefore, data is mirrored in the new micro data centre, allowing access to a redundant dataset at any time.

Integration of proven modules for a customer-specific overall system

The backbone of the new decentralised edge computing solution is the four-cabinet system IS-1 Edge Row Type 4 with two SideCoolers mounted in the row by SCHÄFER IT-Systems. The state-of-the-art infrastructure was planned, manufactured, fully assembled on-site, and commissioned together with IT service provider netgo – a turnkey solution. The rated power

is 30 kW. Cold and hot zones are separated. There are 139 and 155 usable rack units (U) plus 32 vertical units in the baffle plates available.

From the project's outset, netgo demonstrated the advantages of the SCHÄFER solution: "netgo enabled us to get a comprehensive overview of various solutions. I was particularly impressed by the personal invitation to view the edge product portfolio directly on-site at SCHÄFER IT-Systems in Betzdorf. It was a different experience than just having pictures in catalogues or on websites. The consultants took a lot of time to present us with various solution options and answer detailed questions," explains Jürgen Laggner, Head of Information Technology at HJK Erkelenz.

Moreover, netgo organised a preliminary inspection of the hospital premises for SCHÄFER project participants to familiarise themselves with details such as ceiling heights, passageways, and connections. According to Laggner, "all phases of the project were exemplary handled by both contracting parties."

Scalable data centre infrastructure from an experienced solution provider

He was especially convinced by the "all-in-one" approach. "It reduced the planning effort on the part of the IT department, increased the speed of implementation, and saved costs," continues Laggner. Included are all units such as extinguishing system, uninterruptible power supply (UPS), power connection, compact 19-inch power distribution (power box with 5 U), cooling, and rack monitoring. The monitoring includes important parameters, such as temperature, humidity, vibrations, access (door monitoring), fault messages from UPS, cooling, and the fire detection/extinguishing system.

The compact solution also offered great flexibility in room selection because it only requires one room. With conventional concepts, at least a second room would have been necessary, for example, to install the extinguishing system and power supply.

As part of the Hospital Future Act, processes are gradually being digitised, which will continue to increase data volume. In the near future, digital patient records as well as digital nursing documentation and much more are planned. Thanks to the scalable system approach, the company is now ideally prepared for this.

PRESS RELEASE



The compact data centres, known as edge systems, from SCHÄFER IT-Systems are always delivered fully installed and tested. The installation takes place both in the factory and on-site. Comprehensive training supports the quick and easy deployment of the system. For maximum availability, additional services are available. This facilitates cost planning and enables the economical operation of the facilities.

Edge Computing Configurator by SCHÄFER IT-Systems: [Click Configurator](#)

Information about iQdata from SCHÄFER IT-Systems: [Click iQdata](#)

Information about HJK Erkelenz: [Click HJK-Erkelenz](#)

PRESS RELEASE

Images and captions:

1. Image: HJK_Bild-1_(c)_Schaefer-Werke-GmbH.jpg

Caption: Four-cabinet system IS-1 Edge Row Type 4 with two SideCoolers from SCHÄFER IT-Systems.

2. Image: HJK_Bild-2_(c)_Schaefer-Werke-GmbH.png

Caption: The centrepiece of the system: technology rack with Powerbox from SCHÄFER IT-Systems.

3. Image: HJK_Bild-3_(c)_Schaefer-Werke-GmbH.png

Caption: Rear view of the IS-1 racks with cable tray and outgoing boxes at the top.

4. Image: HJK_Bild-4_(c)_Schaefer-Werke-GmbH.png

Caption: Rear view of the technology rack with on-site supply line, outlets to the Uninterruptible Power Supply (UPS), busbar, and SCHÄFER Smart Power Distribution Units (PDUs).

About SCHÄFER IT-Systems (www.schaefer-it-systems.com | [Click SIS](#)):

SCHÄFER IT-Systems, an innovative manufacturer of made-to-measure network and server cabinet and data centre solutions for both conventional and complex applications, is part of the internationally successful company SCHÄFER WERKE.

The family-run SCHÄFER WERKE Group, headquartered in Neunkirchen in the Siegerland region, operates globally with diversified business units: EMW Stahl-Service-Center, Perforated Metal, Container Systems and Industrial Containers, Infrastructure for Data Centres, and Office and Workshop Equipment. These divisions work on the common basis of high-quality steel sheet, the processing of which is one of the company's traditional core competences.

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