

Intelligent Technology Provides Optimal Data Security

Monitoring the data center of the DEVK insurance company in Cologne

■ The company

DEVK is one of the largest insurance companies in Germany, offering all types of insurance policies as well as investment services for real property and securities. Over three million customers in Germany rely on DEVK's services.

■ The starting situation

All the company's business processes converge in the central data center in Cologne, where information is stored and evaluated. DEVK has engaged Siemens PTD Power Automation Division to protect the company's servers and backup system from failure of the power supply.

■ The concept

Continuous power supply is ensured by SIMEAS R, a system developed by PTD Power Automation Division. If the municipal power supply fails, an uninterruptible power supply (UPS) with two redundant 125 kVA battery banks initially provides power to the server. At the same time, a diesel generator starts, which normally takes over the full load within 60 seconds.

A special device monitors the charge state of the batteries of the UPS system, allowing users to detect problems with the batteries early and take countermeasures quickly.

Installing a digital fault record system with SIMEAS R is ideal for documenting all power supply problems that occur during operation. SIMEAS R can continuously measure and log the course of voltages and currents at the medium-voltage level (10 kV) and also at the low-voltage level at the output of the UPS system. The system can record exactly the effects of external short-circuits near the location, and analyze the impact of the resulting voltage dips on the UPS system. It also monitors the UPS system to determine whether every changeover from the outside supply system to the UPS system takes place without interruption.

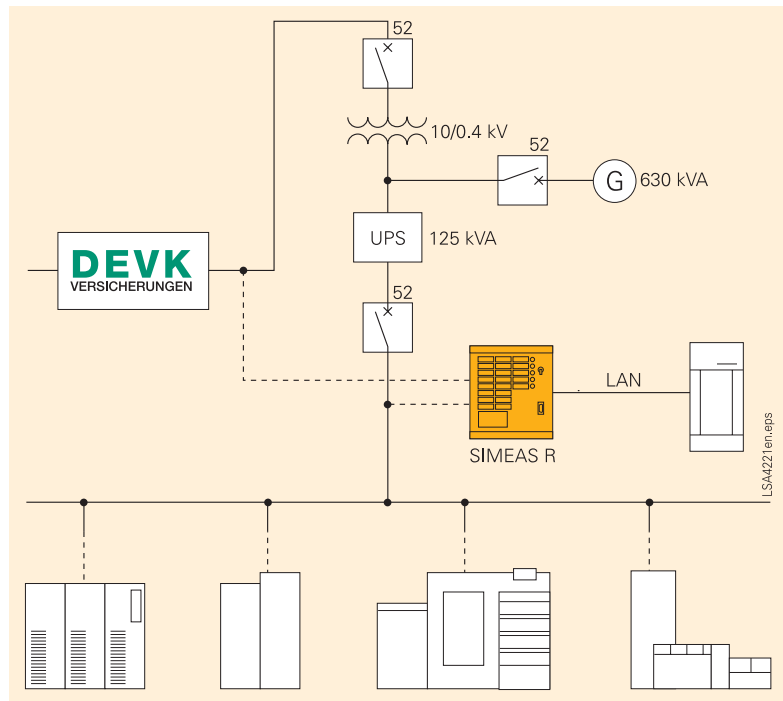


Fig. 1 Block diagram of installed UPS and emergency generator



Fig. 2 Diesel generator at DEVK

■ The special advantages

Task distribution according to competences

One of the technicians' tasks at DEVK is to keep the data server and the backup systems running smoothly. However, the technicians can neither control the quality of power supply from the municipal utilities company nor the UPS system. Analyzing the data from the SIMEAS R requires a great deal of experience, which the DEVK engineers do not have yet and – due to cost-related reasons – do not plan to build up.

In response, DEVK hired ewz (Elektrizitätswerke Zürich, Zurich electricity utility) to take over analyzing the SIMEAS R data. This arrangement allows each partner to concentrate on its own strengths, creating a real "WIN-WIN" situation: ewz retrieves the SIMEAS R data using a modem connection, while DEVK continues to retrieve the same data via the Ethernet interface and store it on its own PC. As a result, the DEVK technicians can concentrate on rapid fault clearance, while ewz analyzes the data to determine the exact cause of the fault. ewz provides its reports to the DEVK

■ Conclusion

SIMEAS R made it possible to ensure permanent monitoring of the power supply, guaranteeing and protecting the functioning of DEVK's data bases and the data center. Distributing the tasks according to expertise not only brought about quick and smooth commissioning of the system, but also reduced DEVK's costs significantly.



Fig. 3 DEVK data center

technicians immediately. According to all participants, only the fault recorder system "SIMEAS R + OSCOP P" met the necessary technical requirements.