Heidelberg iT monitors colocation data centers with KentixONE

In the dynamic world of digital transformation, companies are faced with the challenge of making their data centers not only efficient and secure, but also future-proof. [Heidelberg iT Management GmbH & Co. KG](#) has risen to this challenge and, with the implementation of KentixONE, has found an innovative solution that combines security and efficiency.

The challenge

Heidelberg iT was looking for a solution to optimally monitor its data centers – especially the server hotels, which were completed or upgraded in 2024 – in terms of security and to have a central information dashboard. The aim was to create an infrastructure at the Heidelberg iT campus that both meets the highest security standards and optimizes operating costs. The integration of existing systems and meeting the strict requirements for certification by TÜV NORD CERT posed additional challenges.

The solution

Due to the long-standing cooperation with Kentix and the successful use of Kentix SmartMonitoring solutions in customer projects, Heidelberg iT decided to

implement KentixONE as an integral platform. KentixONE combines eight physical security systems and enables the central configuration and management of all security-relevant parameters in the data center. In addition to access control and environmental monitoring, the PDU and energy monitoring area in particular was comprehensively implemented for the automatic generation of energy bills and energy indicators such as PUE (Power Usage Efficiency).

Operation Center with KentixONE for the Heidelberg iT data centers

Implementation

The equipment of the new server hotels included the installation of a large number of multi-sensors that continuously monitor temperature, humidity and air quality. The Kentix access control system with IP wall readers and multi-level authentication ensures that only authorized persons are granted access. The SmartPDUs monitor the power supply and integrate multi-sensors to monitor the environmental conditions within the server racks. In addition to the calibrated SmartPDUs for measuring electricity, other calibrated electricity meters were integrated via Modbus (RTU, TCP). Leakage sensors in the raised floors and in certain areas of the system detect possible water damage and immediately trigger an alarm when detected. All units (emergency power, UPS, air conditioning, fuse elements, etc.) were connected via Kentix IO modules or directly via SNMP-V3. The network video cameras used in the project were seamlessly integrated into KentixONE and enable seamless video documentation in the event of an alarm or security incident.
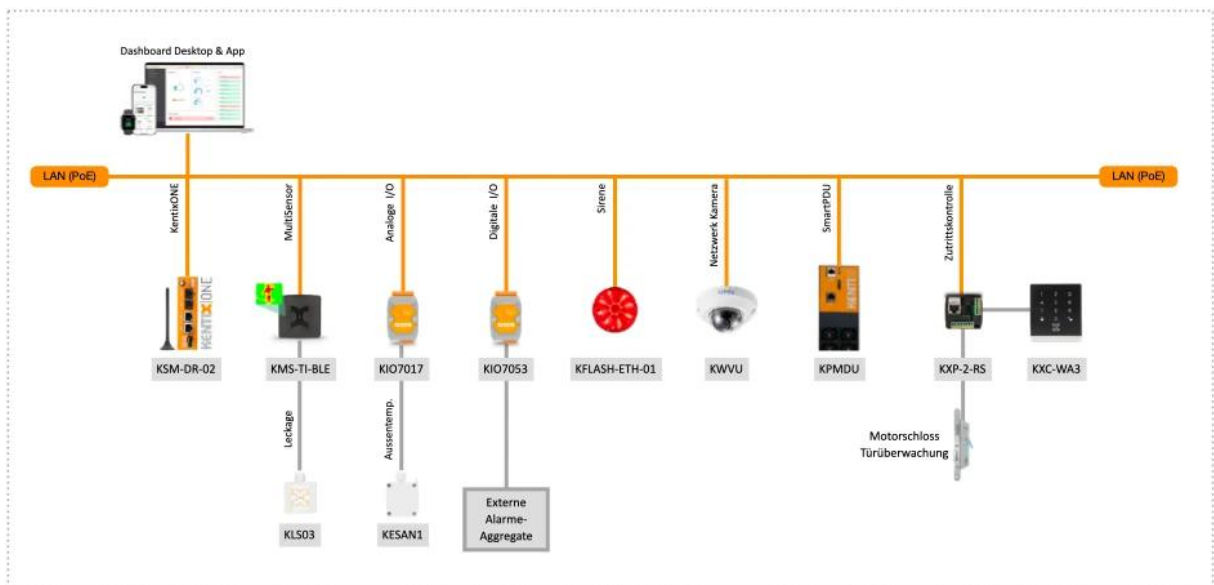
Kentix SmartPDU with RCM

Kentix leakage sensor in raised floor

Heidelberg iT monitors colocation data centers with...

RFID wall reader with 2FA authentication

Kentix components used in the project

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Results

By seamlessly integrating all devices into the KentixONE system, Heidelberg iT can immediately identify potential threats and respond quickly. The intuitive web GUI enables simple and digital monitoring of the data center's entire physical security technology. All information is also available to the operations team via a mobile app on a smartphone. This means that information is available at any time and around the clock, even on the move. This significantly reduces information and response times. In addition to safety and operational data, all energy data is also available in KentixONE. Of particular interest for operations is the ability to create any organizational units (racks, levels, etc.) for energy billing or load monitoring. Automatic reports are generated for the monthly billing of energy consumption. The successful re-certification according to the Trusted Site Infrastructure (TSI) criteria catalog by TÜV NORD CERT underlines the high security standard of Kentix solutions.

Cold aisle containment with seamless monitoring via Kentix MultiSensors and SmartPDU

Future outlook

KentixONE offers a wide range of options for the further development and expansion of data centers. The platform is scalable and can grow with the requirements of Heidelberg iT, i.e. the solution can be easily expanded at any time to meet new requirements. One of KentixONE's strengths is its seamless integration capability via the REST API, which allows the platform to be easily integrated into existing or new system environments and adapted to new technologies or services.

In addition, KentixONE offers extensive monitoring and analysis functions to continuously analyze and improve the security and efficiency of the data center based on environmental and energy data or other historical measured values.

With these options, Heidelberg iT is preparing its data centers for future requirements.

Steffen Merz from Heidelberg iT emphasizes: "Our data center is not only technologically state-of-the-art, but also future-proof and flexible. With Kentix, we have a partner at our side who supports us with innovative solutions that both meet the highest security standards and increase our efficiency."

Conclusion

Heidelberg iT's server hotels are a prime example of the next generation of data centers. The comprehensive integration of the various data center trades into the KentixONE system ensures efficient operational management and maximum security. Heidelberg iT is ideally equipped for the challenges of the future and can rely on the fact that its data center will continue to function optimally in the coming years.
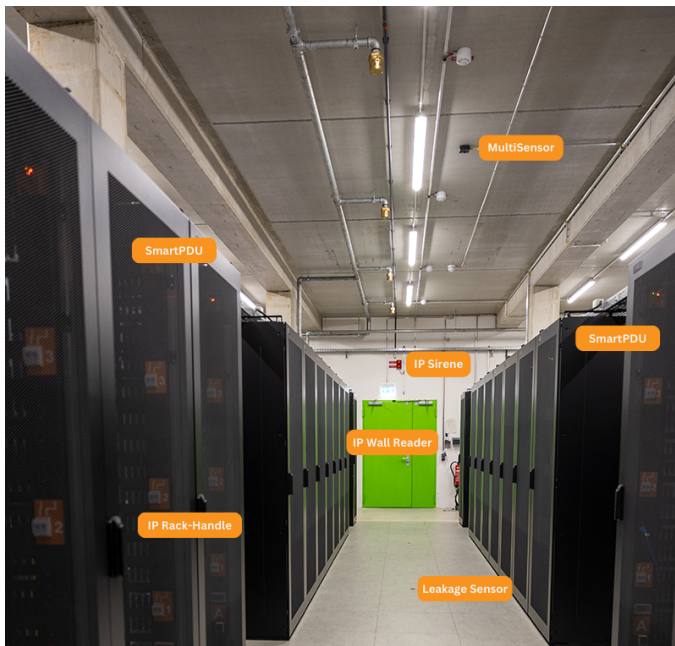
Data center with SmartPDU and comprehensive monitoring for energy and environmental monitoring

About Heidelberg iT

Heidelberg iT is a leading IT service company in the Rhine-Neckar metropolitan region and, as a cloud and data center provider, Internet service provider and IT service provider with its own data centers, combines all core competencies in information and telecommunications technology under one roof. A 70-strong team supports corporate customers as a reliable IT partner in the successful implementation of digitalization projects and IT security tasks.

Photos: Heidelberg iT; Andreas Gieser @cheesy.photo