IMPLEMENTATION EXAMPLE WITH TOPOLOGY

Innovative IP rack access control -
security and efficient, centralized management in real time

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The requirement

As a result of internal, industry-specific and legal requirements for IT security, there is often a need for further control, transparency and security of the standardised security measures in server rooms or data centres.

For this purpose, controlled access, its documentation and 24/7 monitoring of the closing and locking status of all doors must be established at rack level. All access and status data should be monitored simply and clearly in a dashboard from any location and undesired statuses should be alarmed. It should be possible to log the remote opening of doors, if necessary with video verification.

Optionally, the environment and power monitoring is to be integrated into the solution in order to obtain further granular information on IT operations and to significantly increase security at rack level.

Installation and operation shall be cost-efficient and simple. Open interfaces should enable easy integration with third-party systems. Free scalability, modularity and cost-effective, simple maintenance must be part of the solution concept.

The Kentix system solution

Access control at the IT racks is handled by the Kentix online IP access control system, in which each individual locking point is always online and is managed centrally in real time, e.g. via web front.

For access contro each IT cabinets has an IP rack lever RA4 with RFID and PIN code reader at the front and rear, of which up to 16 are connected to a SmartRelay module. The connection between the SmartRelay module and the IP rack levers is established by one distributor box per IT enclosure, which also allows the connection of 2 door contacts. Thanks to the integrated locking contact in the IP rack lever, the status of each IT cabinet door is thus known in real time at all times. Via an integrated web server application and/or open interfaces, the system can be managed automatically from a central location in real time and authorisations can be granted or revoked. Documented and video-verified remote opening of doors is also possible at any time through the integrated software.

The Kentix SmartPDU is optionally available in 40 or 2 U as an all-in-one complete system solution. The IP rack lever RA4 and the door contacts are connected to the Kentix SmartPDU without having to establish connections between the racks. In addition to all important, calibrated and billable consumption measurements, the Kentix SmartPDU also provides an all-current sensitive and DGUV V3-compliant leakage current measurement, which further increases IT operational safety. The MultiSensor integrated in the PDU provides values directly in the rack for temperature, humidity, fire gas and tampering, thereby creating further granular transparency and security.

The simple, contemporary and resource-saving operation is realised by the KentixOS. The KentixOS is the integrated, freely scalable and modular IoT software platform that, in addition to the web front ends, provides open interfaces for easy integration into third-party systems (ReST-API, WebHooks, SNMP, LDAP, etc.). At the same time, the KentixOS is the basis for further AI analyses and visualisations.

LAN
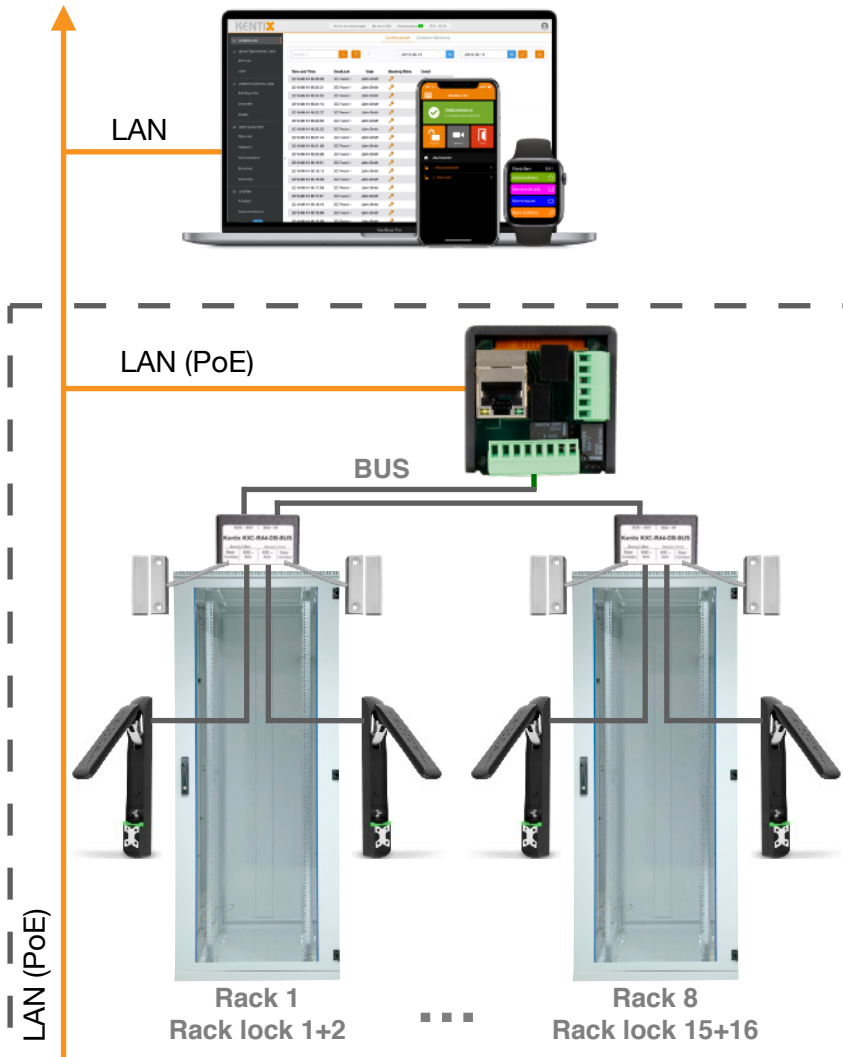
IP access control IT cabinet

LAN (PoE)

BUS

LAN (PoE)

Rack 1
Rack lock 1+2

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Rack 8
Rack lock 15+16

IP Rack Handle System RA4
ART: KXC-RA4-IPX
Robust lift lever with RFID and PIN code reader. Bus cabling with monitoring of locking and locking status of up to 16 rack handles per AccessManager.
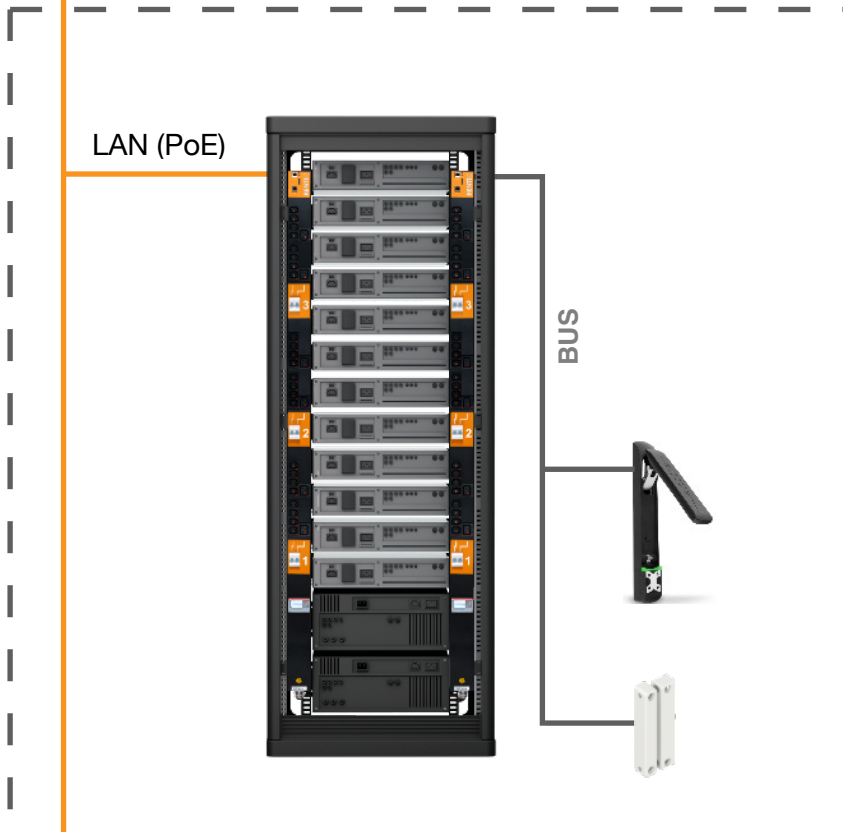
Distribution box RA4
ART: KXC-RA4-BX-XX
Distribution box for bus connection in the IT rack. Connection of 2
IP rack levers and magnet door contacts

Magnet door contact
ART: KDC1-W
Opening detector for direct connection to Kentix distribution box RA4. Cable length 2 m with Kentix system socket (RJ45)

Optional: PowerMonitoring/Secure IT rack

LAN (PoE)

BUS

SmartPDU
ART: KPMDU-XX
Kentix all-in-one system solution. SmartPDU in 40 or 2 U incl. calibrated current measurement and all-current sensitive leakage current measurement (RCM). Modular combinations available.
Integrated MultiSensor for granular monitoring of temperature, humidity, fire and overload. Direct connection of the IP rack lever RA4 and other sensors possible.

IP rack lever RA4
ART: KXC-RA4-IPX
Robust lift lever with RFID and PIN code reader. Bus wiring with monitoring of locking and closing status.

Magnet door contact
ART: KDC1-W
Öffnungsmelder zum direkten Anschluss an die Kentix Systembuchse. Kabellänge 2 m mit Kentix-Systemstecker (RJ45)