

### Possible integrations

#### BKT power distribution systems

- Work with manageable Power Distribution Units, Automatic Transfer Switches and and Environmental Monitoring System.
- Reading the actual values of: supply voltage, load, power factors on individual phases, load and other values on individual sockets (the number of parameters depends on the type of device).
- Display of current values, alarm of exceeded thresholds.
- Logging values in a database with predefined frequency
- Control of individual circuits (function available on some models).

#### Other IT infrastructure systems

- Monitoring and visualization of e.g.:
  - ventilation
  - air conditioning
  - electrical switchgears
  - power generators
  - UPS systems
- Displaying present states.
- Alerting about unusual situations.
- Recording of events from the above systems to the database.
- Integration with CCTV system.
- Cooperation with PLCs and other devices communicating with the use of standardized communication protocols.

#### Access control system

- Reading information from the access control system about:
  - current status of the system
  - authorised door opening
  - unauthorised door opening attempt
  - tampering attempt
  - other alarm conditions (e.g. door open for too long)
- Events logging in the database.

#### Environmental monitoring systems

- Reading values from sensors: temperature, humidity, presence of smoke, flooding, vibration, movement, presence of power supply, air flow and others (the number of parameters depends on the type of device).
- Displaying actual values.
- Alerting of exceeded values.
- Logging values in a database with predefined frequency

### SM4DC functionality

#### Ease and efficiency of management

- Visualization of states and management of individual infrastructure elements from a single coherent platform.
- Possibility of creating multi-screen visualizations tailored to the user's needs.
- Remote access allows to view and control the system- for example, from a mobile device via a web browser.
- The system works in a Windows environment.
- It is possible to install on virtual machines.

#### Openness of the system

- Possibility of integration with Building Management System (BMS).
- Communication with protocol-based devices: SNMP, Modbus, MBus, BACnet and others.
- Communication with PLCs: Siemens Simatic, Allen Bradley, Mitsubishi, ADAM, FATEK, Omron and others.
- Possibility of cooperation with databases: dBase, MS SQL Server, Oracle, MySql, FireBird, Microsoft Access, Excel, Calc, Paradox, SYBASE, OPC server.

#### Safety

- Password-protected access for users.
- Individual permissions for system administrators, operators and supervisors.
- Possibility of encrypting the remote connection with the https protocol.
- Control of the executed application via a software watchdog.
- Optional disk overflow protection by cyclical overwriting of alarms, trends and events.
- Signaling and logging of alarm states.

### Minimum hardware requirements

PC	
Operating system	Windows 7, 8, 8.1, 10; Windows Server 2008, 2012
Processor	1GHz with support for PAE, NX and SSE2
RAM memory	2GB
Hard disk drive	64GB plus additional for the database
Graphics card	Compatible with DirectX 9 or later with WDDM 1.0 controller
Screen resolution	800 x 600
Network card	10/100Mbps
Connectors	USB port for hardware license key
Separate IT network	

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# SM 4DC

## system manager for Data Center



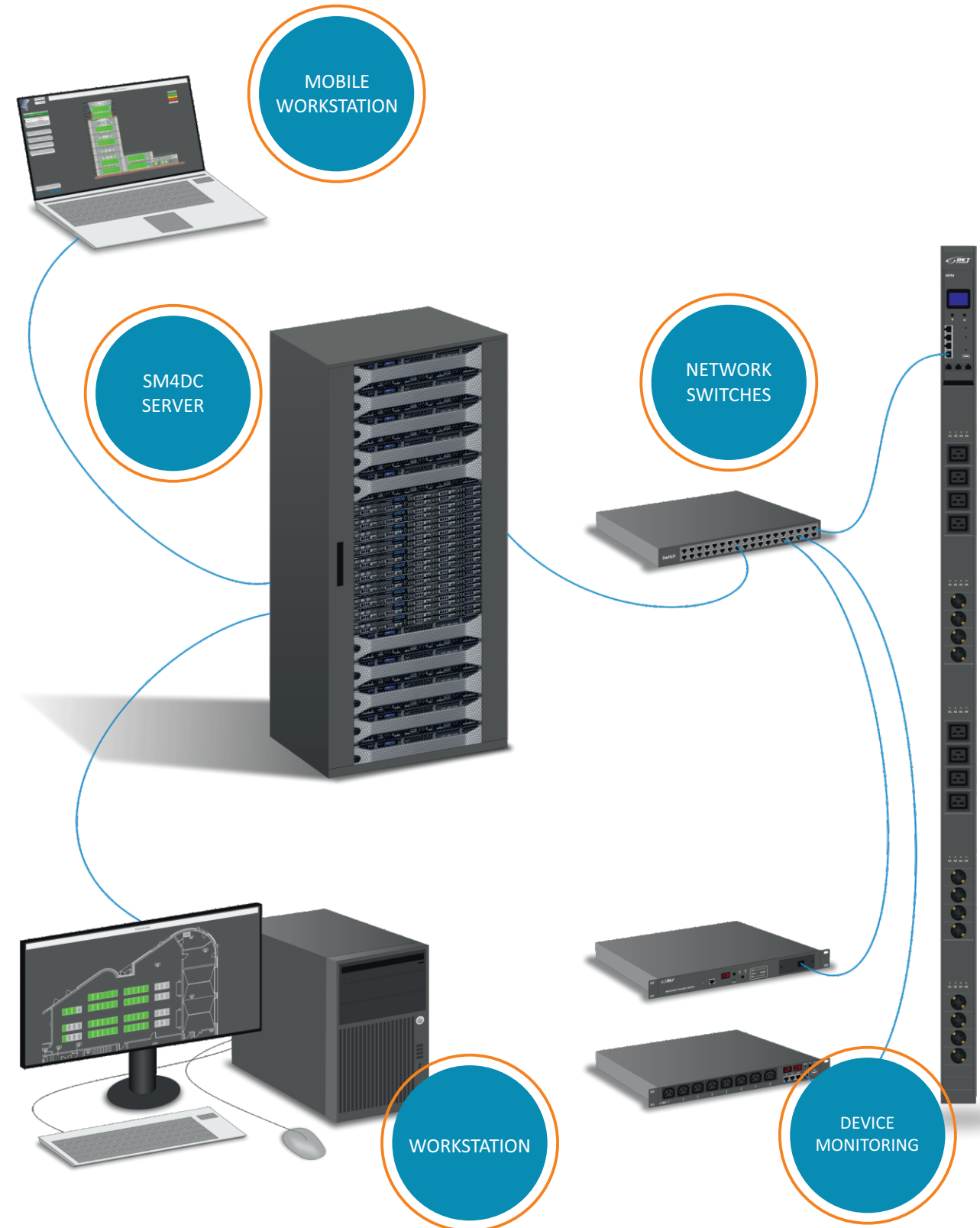


# SM 4DC system manager for Data Center

## Product overview

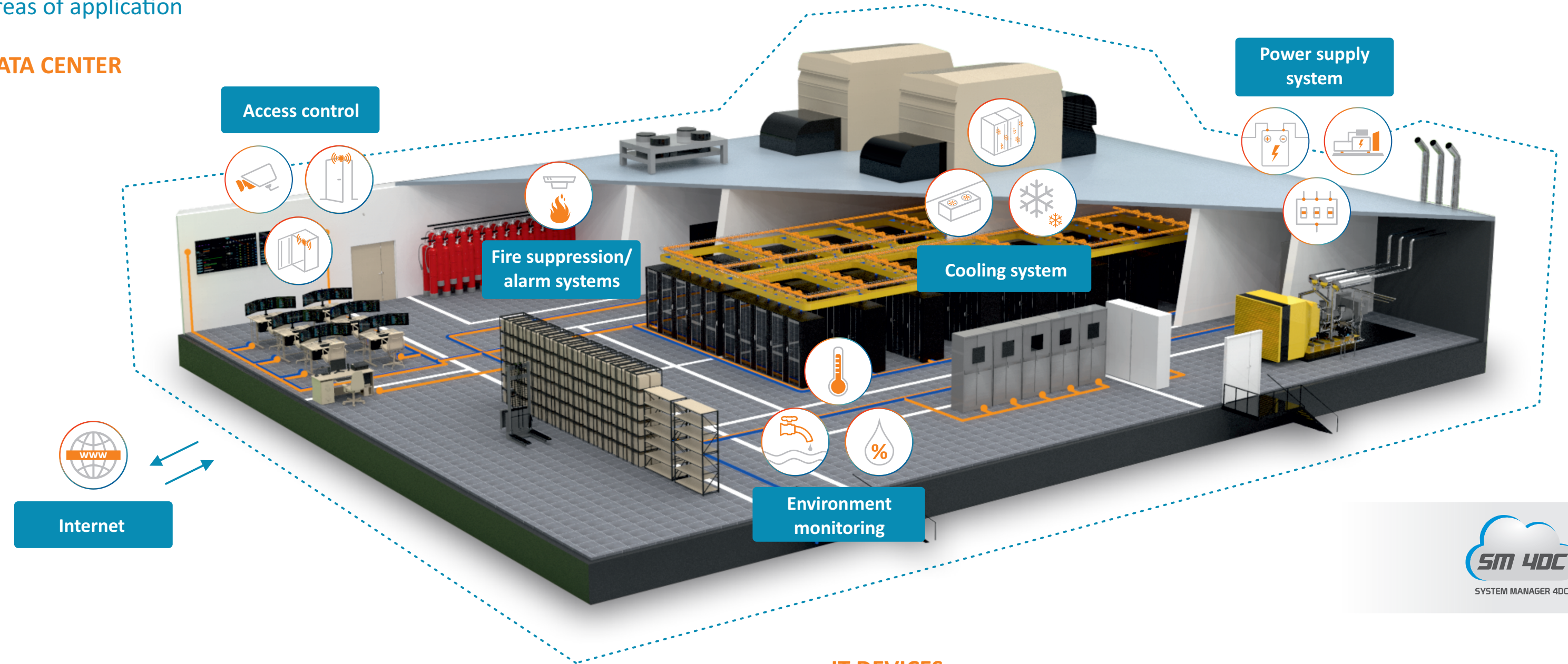
SM4DC (System Manager for Data Center) software is used for visualization of states and control of devices installed in Data Processing Centers. System Manager is based on proven SCADA (Supervisory Control And Data Acquisition) software. It enables transparent, effective and secure management (monitoring and control) of the IT infrastructure installed in the facility.

## System structure



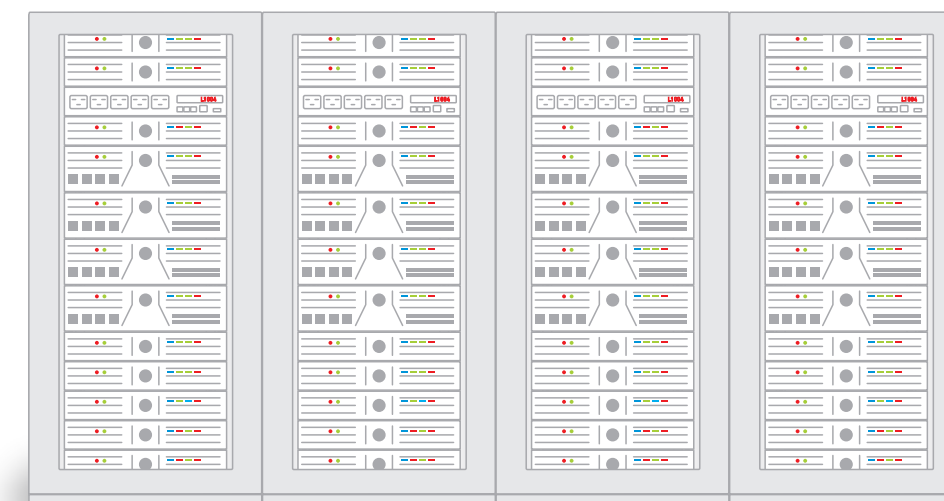
## Areas of application

### DATA CENTER



### IT RACKS

Possibility of monitoring environmental conditions and parameters of equipment installed inside racks.



### IT DEVICES

Possibility of monitoring and changing the configurations of IT devices.

