OPERATION LEVEL AND VIRTUAL WORLD

Interconnected sites in the age of the „Internet of Things“

Task

Terms like “Internet of Things” or even “Industry 04” suggest virtual worlds, where objects communicate with the Smart Home or industrial processes are interconnected with management or logistic systems. Until now it makes sense to interconnect decentrally located factories, offices, sports complexes, seaports. The KNX IoT application of GePro, Stralsund, shows, how decentrally located KNX installations can be coupled and how KNX IoT Web Services enable the connection of different subsystems. It shows the interaction of industrial and administrational processes with modern building technology. In doing so the important role of the operation level based on KNX becomes evident.

Solution

Single KNX systems are able to communicate via a network. Usually routers and gateways use KNX/IP for the interconnection. What is new is the KNX Web Service which connects KNX directly with the internet. This method is interesting because it is easy to recognize the ETS parameters from the part of the internet infrastructure. Thus the tasks of operation and control in all areas can be solved still better. Especially in public and industrial facilities robust and intuitive operation and control terminals are requested. The installed KNX operation and control panels comply with these requirements.

Realisation

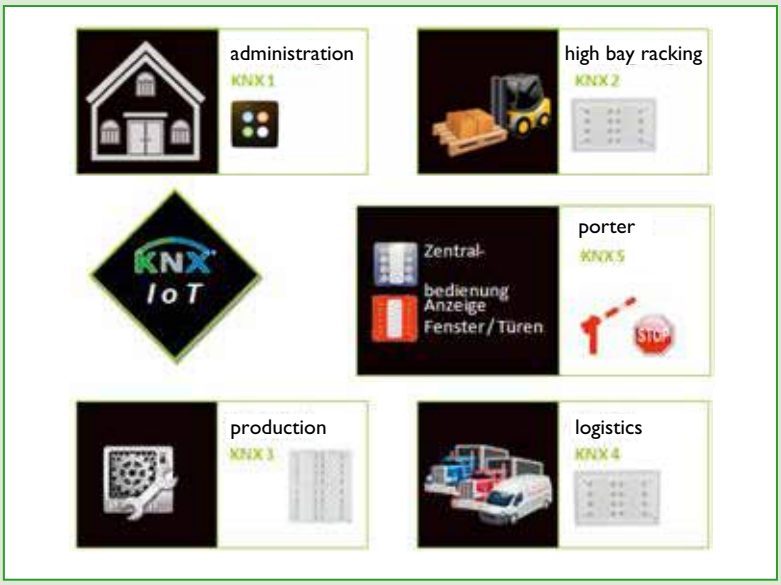
Production, administration, high-bay storage and logistic symbolize the different sites as well as the subsystems to be integrated. The operation “on site” is realised by panels with push buttons and LEDs (GePro KNX-TAB 8, TAB 12/2, TAB15), partially they are also equipped with acoustic signaling devices and key switches. Several KNX components like FM actuator (Merten, Hager), dimming actuator (Gira), binary inputs for window contacts (ABB) and LED displays are used for the connection to KNX. “Ise Smart Connect KNX Secure” performs an SSL-protected connection to the mobile operation facility “smartphone” as well as to the remote parameterization.

Functions

Status indications, fault signals and alarms are centrally displayed by the building management system. The BMS evaluates the alarms and informs the concerned persons. Consumption data are logged, evaluated and optimised. Via centralised panels at the factory gates messages can be acknowledged and lighting, gates etc. can be controlled. By KNX Web Services information from administration, production, storage and logistic can be used.

Advantages

- Central monitoring intended for the commercial administration of sites.
- Fast information and saving of time by mobile control devices
- Energy savings by optimisation of consumptions. KNX operation and display level for all systems and therefore retrofittable with robust and intuitive panels.



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