SIMPLE CONNECTION OF INTELLIGENT SYSTEMS BY KNX IoT

KNX Web Services for access control, security and room allocation

Task

Hotels, youth hostels, assisted living – in such buildings persons can be present or not. Data of the temporarily usage of the rooms are important for organisational tasks, monitoring functions, but also for heating and climate control, security systems etc. The application of Jochen Katzenmeier shows, how different systems for building control can be interconnected for their management.

Solution

Prerequisite: The electrical installation for lighting, room temperature control, shading etc. is realised with KNX. Due to the new possibilities of KNX IoT Web Services other intelligent systems can be easily interconnected. Thus, the door communication is not only used for access control, but provides also data for booking management and presence monitoring. KNX IoT integrates booking system, fire alarm and solar energy management systems.

Realisation

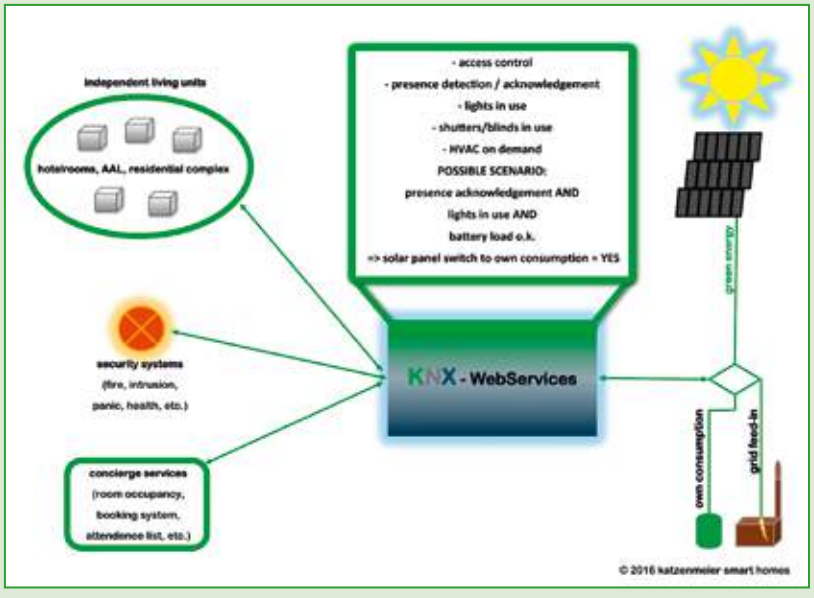
The installed door communication system consists of an outdoor station and a 10“ panel that serves concurrently as indoor station. Access to the booking system is possible via web browser. A fire detector represents the fire and burglar alarm system. Different lamps symbolise states like room allocation, presence, alarm, local energy consumption or feeding solar energy into the grid. The values of the heating system can be displayed graphically via visualisation. Contactless transponders respectively card holders serve for access control and presence monitoring. Operation and control of the functions is possible via push buttons and mobile devices.

Functions

The door communication system with call buttons is used for the access of third persons to the building. Registered persons can directly enter using their key, their badge or their keycard. The functions of the living units like security system, alarm triggering, lighting and heating control are controlled automatically depending on the presence/absence information from the booking system. Based on the presence/absence information, the energy flow of the photovoltaic system can be controlled, either local energy consumption or feed back to the grid.

Advantages

Simple integration of intelligent systems: Thus always up-to-date information on presence/absence of persons and the status of the living unit. Simplified organisation, high room comfort and energy savings due to demand controlled lighting control, heating control and shading as well as monitoring and security functions adapted to the current situation.



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