

FROM KNX CITY TO IoT CITY

Interconnected properties in synergy with KNX and internet

Task

The KNX Internet of Things (KNX IoT) points out options which KNX offers not only for present but also for future developments. With KNX buildings can be adapted to future requirements that are currently not foreseeable. The example shows the city of Flensburg where municipal buildings are equipped since 1992 with Home and Building Control Systems. The flexibility of the system was recognized already 20 years ago. Such it was possible to respond to technological developments with little effort. Whereas in the beginning mainly technical buildings systems had been controlled, now options for a central management are increasingly used.

Solution

The municipal KNX installations are working autonomously and many of them have a customised visualisation (Eisbär, Alexander Maier GmbH). They are interconnected via KNX/IP routers. Selected Datapoints of high importance like energy measurement or fault monitoring are forwarded to a superordinate central visualisation located in the "technical town hall". There, energy-savings are checked and evaluated taking into consideration technical and organisational measures in the properties.

Realisation

The components used on the sites differ from each other and reflect the development of the KNX devices offered to the market. Some bus devices are successfully in trou-

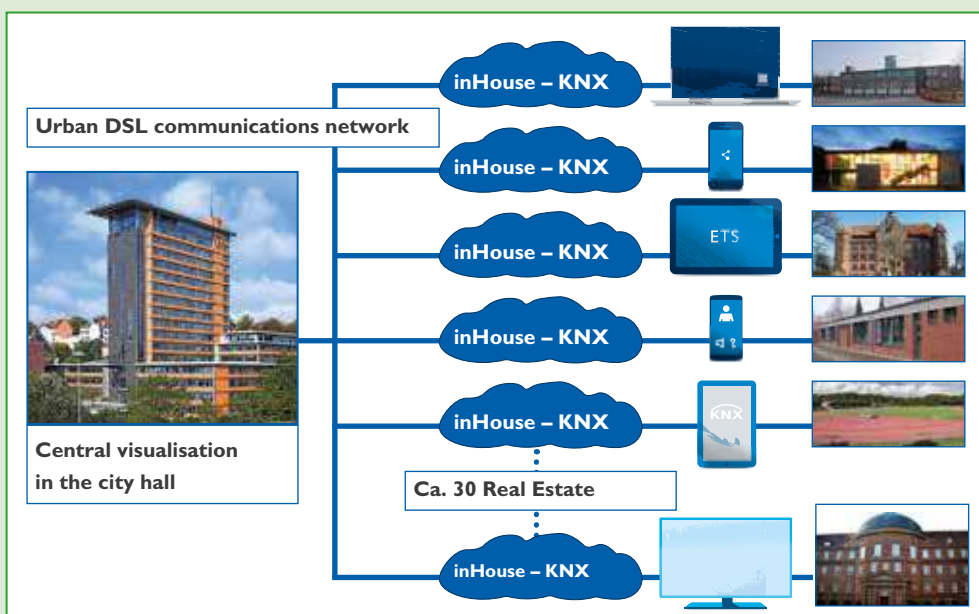
ble-free operation already since 20 years. The exhibition board shows the floor plan of the city of Flensburg. Push buttons on different positions symbolize public buildings like schools, museum, town hall etc. Visitors can call simulated energy values from the different locations just by a keystroke. A graphical visualisation shows their evaluation just like in real life.

Functions

The respective visualisation is available locally on site and thanks to KNX/IP also at a central place. Such the technical systems can be remotely monitored and if necessary also controlled. Today the concierges control "their" site via a tablet PC and if necessary they are able to act for a colleague. This was completely unthinkable in 1992 and years later.

Advantages

By the use of KNX, technical data can be collected and made available at the desired location. When the decision for the bus system was made in 1994 energy monitoring was far from being a main issue. However due to the realised network the city of Flensburg was fast able to collect consumption data of their properties and to realize optimisations. Due to its flexibility and high durability KNX is the ideal solution. Thus, last but not least, the city of Flensburg is well prepared to use with little effort in future services of the "Internet of Things" via KNX IoT Web Services.



Ingenieurbüro Beyer
Gebäudesystemtechnik
Dipl.-Ing., Dipl.-Wirt.-Ing.
Dirk Beyer
Liegnitzer Str. 10
24537 Neumünster
Tel.: 04321 / 9938-0
Fax: 04321/9938-28
Mail: info@ing-beyer.de
www.ing-beyer.de