

# KNX Secure with IoT Services

for secure remote data transfer and operation

## Control and monitoring of the property through external IoT service providers

### Task

In functional buildings, the KNX building automation carries out a wide variety of tasks for building use, commercial processes, convenience, safety and efficient energy application. Sensors convey important parameters for automation with their physical variables. They also indicate whether technical installations are working properly or whether there are faults or even alarms. GePro Gesellschaft für Prozesstechnik mbH is tasked with securely monitoring the physical variables of properties from a central location.

### Solution

In addition to system components, actuators etc., numerous KNX sensors are also installed. Measured values can be sent via intranet or internet to an external IoT service provider which itself does not have a KNX installation. This external company reacts according to defined values, sends alarms and/or carries out switching operations. KNX IP Secure ensures the secure encryption of telegrams and data.

### Implementation

GePro displays the recording of physical values such as temperature (°C), air quality (VOC), carbon dioxide (CO<sub>2</sub>) and humidity as well as the monitoring of the security technology such as smoke detectors, leakage and glass breakage sensors, earth leakage circuit-breakers and motion detectors. If critical states are achieved or alarms are triggered, they are routed to a service provider. The network is in the public domain and exposed to tampering. The connection between the properties and the service provider is therefore protected via a KNX IP Secure router.

## Manufacturers and components

<b>ABB</b>	Analogue input, glass breakage sensor, roll gate contact
<b>Elsner</b>	Leakage Sensor Leak KNX
<b>GePro</b>	Control and alarm panel KNX4, KNX panel 16
<b>Gira</b>	Smoke detector Dual Q with KNX module
<b>Jung</b>	KNX IP Secure Router, power supply
<b>MEAN WELL</b>	Power supply
<b>Steinel</b>	True Presence Multi Sensor KNX
<b>Theben</b>	Room Air Sensor Amun 716 SKNX
<b>Weinzierl</b>	KNX IP Secure router

## Functions

A KNX control and alarm panel on site indicates critical variables both optically as well as acoustically and switching operations can be carried out directly in the installation via a KNX control panel.

The service provider, which does not have its own KNX installation can exchange data securely, via the IoT services. This occurs for example using a PC and visualisation, with tablets and smartphones. It is possible to not only monitor and process physical variables as well as convert critical values into fault signals, but central functions for lighting, roller blinds, ventilation etc. can also be triggered.

## Benefits

- Monitoring of properties situated in different locations by only one central service provider
- Secure data transfer with KNX IP Secure
- Quick reaction to technical errors, faults and alarms
- Remote operation of selected central functions



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