

# WHEN iWATCH CONTROLS THE KNX SMART HOME

IoT Multiprotocol Gateway creates an overall concept in building automation

## Task

KNX takes over more and more tasks in the building automation. In special areas, for example the wireless light design with Philips HUE, in home audio systems, like e.g. Sonos, or for social media services it may become necessary to ensure data communication between proprietary systems. The missing interoperability is the challenge here. Topic by Michael Eudenbach is how to bring together intelligent systems into a consistent overall concept. The system integrator has the task to interconnect across all systems different technologies like KNX, Sonos, Trado, Push Notification Services and Apple iWatch via KNX IoT.

## Solution

The multiprotocol gateway "nomos Box" of the Nomos System AG, Switzerland offers the solution. The gateway supports different technologies and unifies the different protocols in the so-called "nOS" (nomos operating system) language. The access to this finally consistent protocol can be established by simple socket connections, a socket IO API (JSON) via a real time cloud access or a REST API with XML or JSON. Additionally, the new KNX Web Services IoT are also supported. The utilised hardware is based on Intel's IoT platforms.

## Realisation

Exemplary solutions of the respective technologies are installed: Lighting with a Philips HUE lighting fixture, room temperature control with a Tado smart thermostat and window monitoring by means of wireless window contacts. All systems are interconnected via a local network infrastructure with internet access. A cloud access is not necessarily required. The bidirectional data exchange is realised via the local multiprotocol gateway.

## Functions

The control of the different trades is realised by KNX sensors, via an App as well as via an Apple iWatch. The Philips HUE lighting fixture as well as the Sonos system can directly be operated via the KNX sensor. In the same way the functions of the Tado thermostat can be influenced. Different window states and messages are sent as push notification and/or posted in different social networks.

## Advantages

The advantages of the presented solutions are obvious: The multiprotocol gateway opens the KNX technology for further trades and offers to the user the advantage of consistent applications across the systems by intelligent products being available in the Smart Home market. It offers as well to the manufacturers of IoT solutions a simple unified access to the world of the KNX Standard.

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