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KNX IoT case studies
Voice Control

Engineered with **KNX**® **IoTech**

KNX IoT 3rd Party API server: Wiser for KNX, **Schneider Electric**
KNX IoT 3rd Party client: Aragon, by **ProKNX**

CONTENT

KNX IoT SOLUTIONS

Why KNX IoT

While KNX has been capable of using IP networks to communicate (between devices, or between servers and clients) thanks to the KNXnet/IP protocol, KNX IoT qualitatively increases the interoperability at IP level, becomes SW-development friendly and adds new physical layers demanded by the market (mesh networks). In this new scenario, the KNX IoT 3rd Party API is the secure, semantically enriched and reliable way to create a data-driven infrastructure for home and building automation installations. Thanks to KNX IoT, all the stakeholders involved in the product lifecycle (manufacturers, developers, system integrators) enjoy an enhanced approach to manufacturing, developing and integration.

KNX IP Marketplace

KNX has been the reference when talking of interoperability: just grab any two certified devices from any vendor and they will simply work together at application level, in a secure way. Following this philosophy, KNX IoT has been designed to maintain the security at its highest: KNX IoT 3rd Party API clients need to connect following the OAuth2.0 authentication process, where KNX IoT Point API devices come with security embedded by design. With this robust and comprehensive development landscape, manufacturers and developers can build the best devices, solutions and services in the home and building automation market.

KNX IoT: interoperable & secure landscape

With the goal of offering visibility to all the products and applications developed using IP-based technology from KNX, a new IP Marketplace has been created: **https://marketplace.knx.org**. System integrators can easily find the applications and products according to their respective category, making the process of designing KNX installations easier than ever. This IP Marketplace brings together all the devices, solutions and services made with KNX. The filtering options allow the user to screen the solutions based on field of application as well as technology (e.g. KNX IoT, KNXnet/IP), like the solution and products described in the case study.
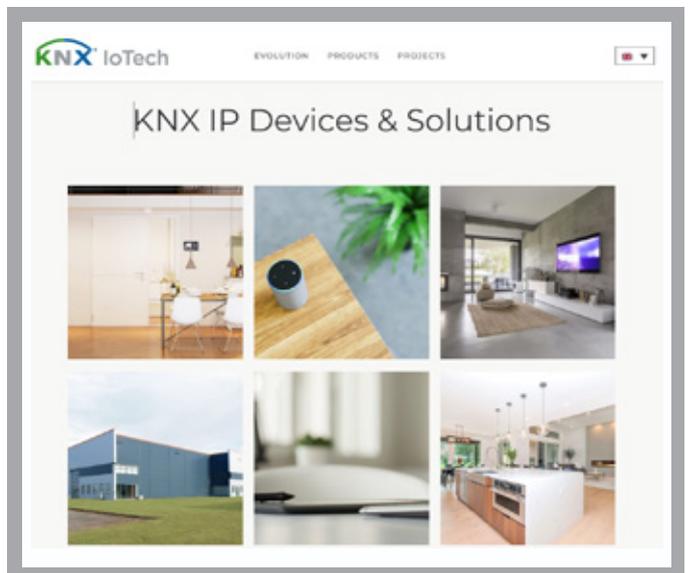
KNX IoT TECHNOLOGY HIGHLIGHTS

What makes KNX IoT so interesting for your business?
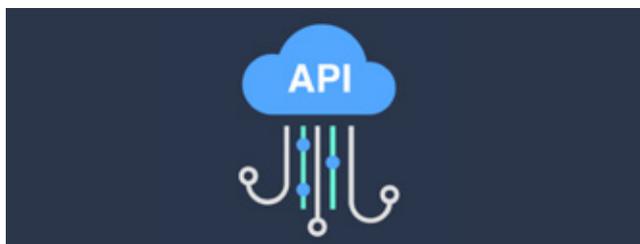
KNX IoT 3rd Party API

2021 was the year when KNX stepped up and offered a standardized API to interact with KNX installations: simple, secure, abstracted from the KNX-specific knowledge and future proof. Developers can create solutions and services that rely on the ample data that one can harvest from KNX installations.

KNX Point API

TP and RF are already the foundation for successful business cases, but our past achievements does not leave us complacent: a new IPv6 communication networks, a.o. THREAD (mesh), is herewith added to the vast KNX development landscape. Of course, products based on these will be fully interoperable and configurable with ETS.

One tool: ETS

And all these wonders are orchestrated thanks to the ETS: configure KNX devices from more than 500 manufacturers, independently of their physical layer, and export the project information for the KNX IoT 3rd Party API server with one vendor-independent tool. More than 100000 installers have been trained on ETS.

KNX, the largest development landscape of its kind

A comprehensive development platform that creates the foundation for profitable business cases.

ETS Inside Client

Application KNX IoT point API

KNX Data

Services

Configuration

ETS Inside Server

IP Stack tuned KNX (CoAP)

IP Chips (e.g. Thread)

IP Stack tuned to KNX (http)

Cable Manufacturer

Configuration

ETS

ETS Apps

Lower Layer chips KNX RF

Application KNX Classic

Stak KNX Classic

Lowe Layer chips KNX TP
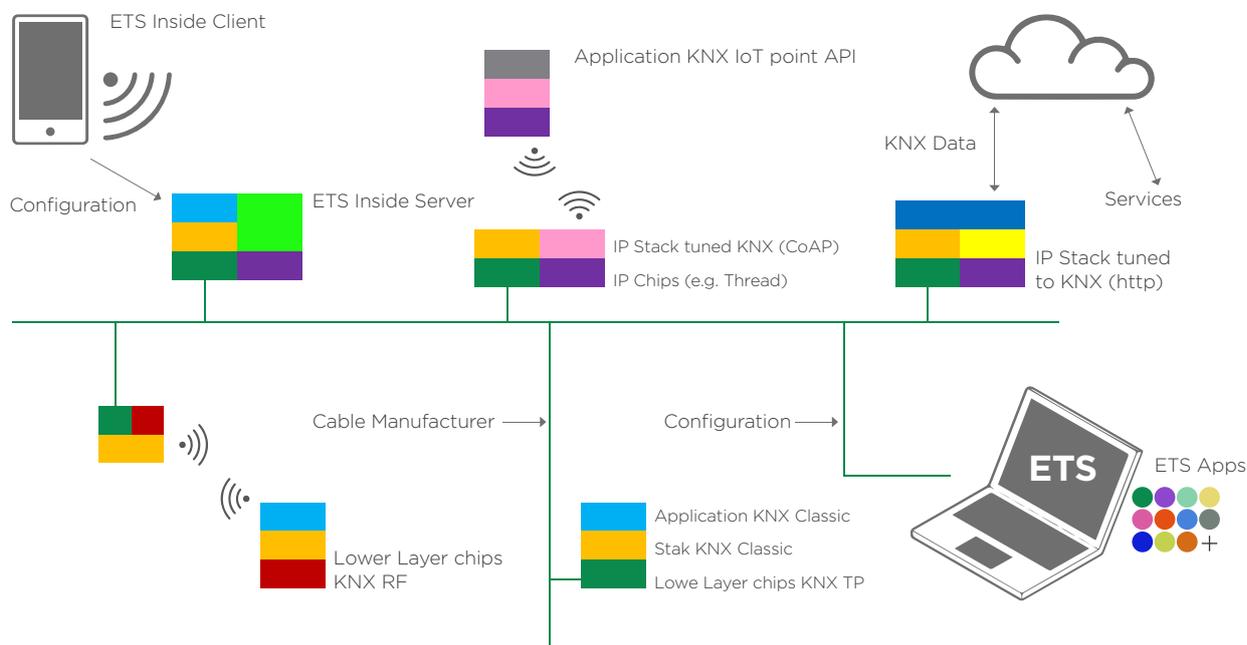
KNX IoT CASE STUDY
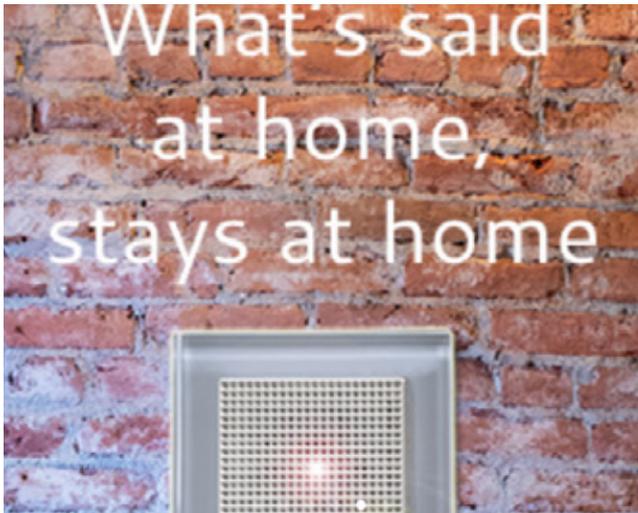
High-level description

The ARAGON solution is a voice control system that works offline (no Internet connection is required). The setup process is quick and easy, thanks among other things to the KNX IoT 3rd Party API server, offered by Wiser for KNX: the logic controller for connected residential solutions that is part of the SpaceLogic KNX offer from the company Schneider Electric. This combination results in an exceptional solution unmatched in the smart home and building industry: a voice control system which respects the privacy of the end user.

KNX IoT 3rd Party API server: Wiser for KNX

Wiser for KNX is a logic controller from Schneider Electric, which has been in the market for several years, and offers an environment to create visualizations, build logic and has other server-related features. It is the first server in the market offering the KNX IoT 3rd Party API server functionality. Thanks to this option, Schneider Electric can create its own software clients to communicate to the server, using the most advanced KNX technology developed to the date: a standardized API. Additionally, the manufacturer can open the KNX IoT 3rd Party API server to third parties, enabling an unprecedented cooperation between KNX Members, who can enjoy the benefits of a standardized solution: faster developments and smoother integration, hence reducing development costs.

KNX IoT 3rd Party API client: ARAGON Smart Speaker

Privacy matters. Based on this statement, the company ProKNX has developed an unique smart speaker that works offline by design. Thanks to the KNX IoT 3rd Party API technology, ProKNX has enhanced the connectivity to KNX, which impacts on how the system integrators experience the product, hence making it more appealing. The new standardized approach at API level results in simpler adjusts to work with a larger portfolio of servers, in words of ProKNX's CEO, Mr. Christian Kiefel.

KNX IoT CASE STUDY

Engineered KNX IoT solution

Connect the ARAGON Smart Speaker

Connect the ARAGON Smart Speaker to the same network than the Schneider Wiser and open the address that is announced through the speaker.

Select the Wiser for KNX option

The ARAGON Landing Page will pop up after the first step. Open the first tile that shows the Schneider Electric server.
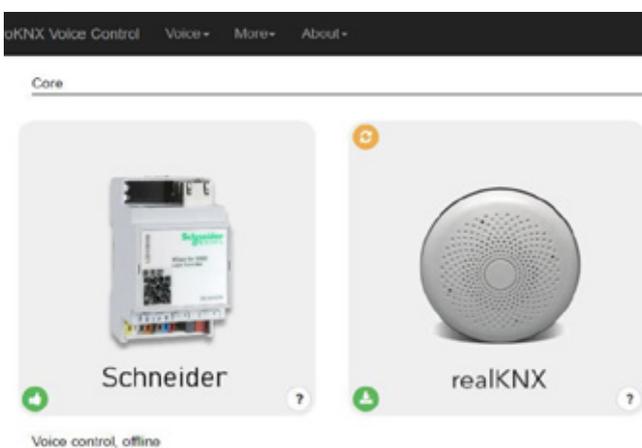
Request authorization

The configuration dialog pops up. Enter the IP-address of the Wiser for KNX server and the credentials (username and password). It is necessary to save and restart the system.

Select the Wiser for KNX option

The ARAGON Landing Page will pop up after the first step. Open the first tile that shows the Schneider Electric server.

KNX MEMBERS
INVOLVED IN THE CASE STUDY

COMPANY	COUNTRY	WEBSITE
Schneider Electric Industries S.A.	France	https://www.se.com
ProKNX SAS	France	https://proknx.com

ADDITIONAL REFERENCES

· KNX IP Marketplace: **https://marketplace.knx.org**

· KNX IoT Development: **https://www.knx.org/knx-en/for-manufacturers/api/**

· Wiser for KNX: **https://www.se.com/ww/en/product/LSS100100/wiser-for-knx-logic-controller/**

· Aragon: **https://www.proknx.com/en/product/aragon-base-wl-en/**

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