



KNX Internet of Things (IoT)

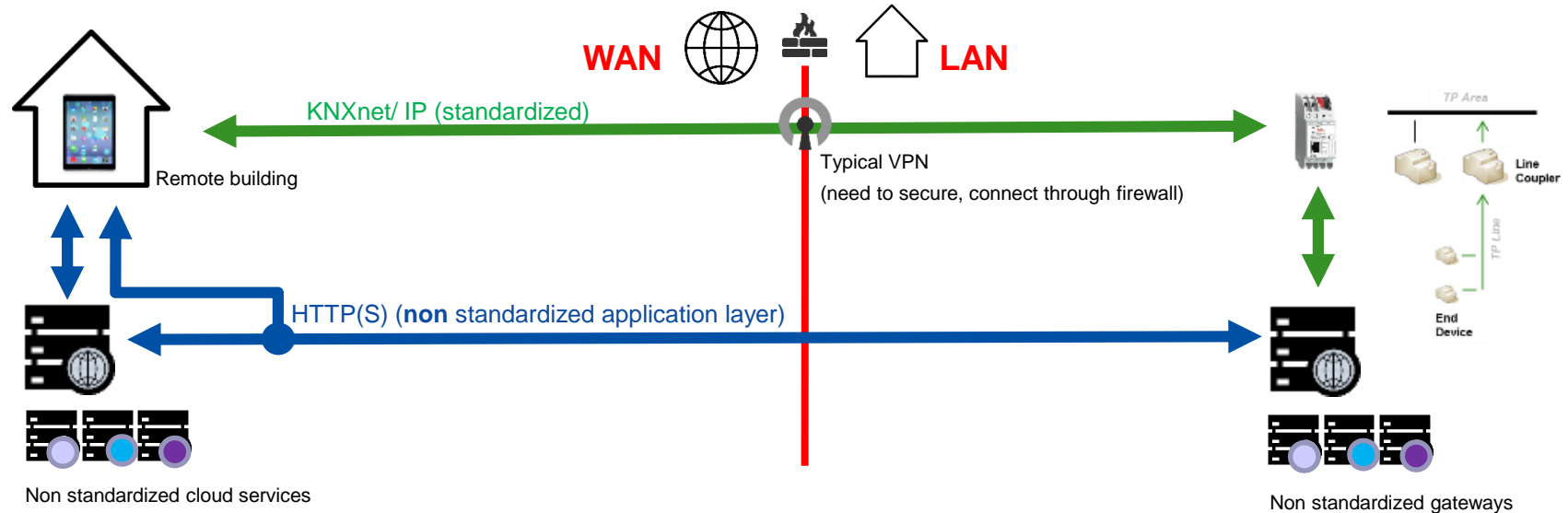
New perspective`s on KNX
for HVAC applications

KNX Association 2017

www.knx.org

KNX IoT

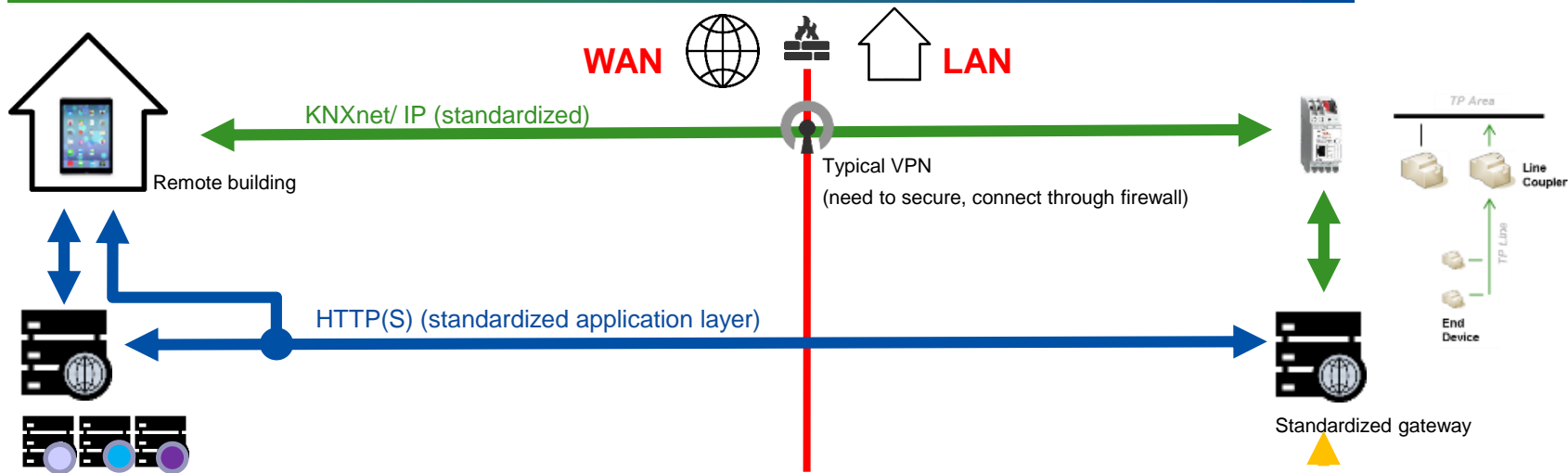
KNX current ecosystem (KNXnet/ IP)



- More than 10 years successfully in the market
- Disadvantages: IT world must speak
 - KNX and not native IT services to KNX
 - Manufacturer specific IP protocol to IP gateway taking care of “translation” to KNX

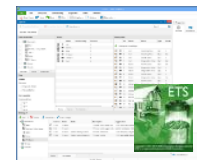
KNX IoT 1.0

KNX Web Services



Non standardized cloud services

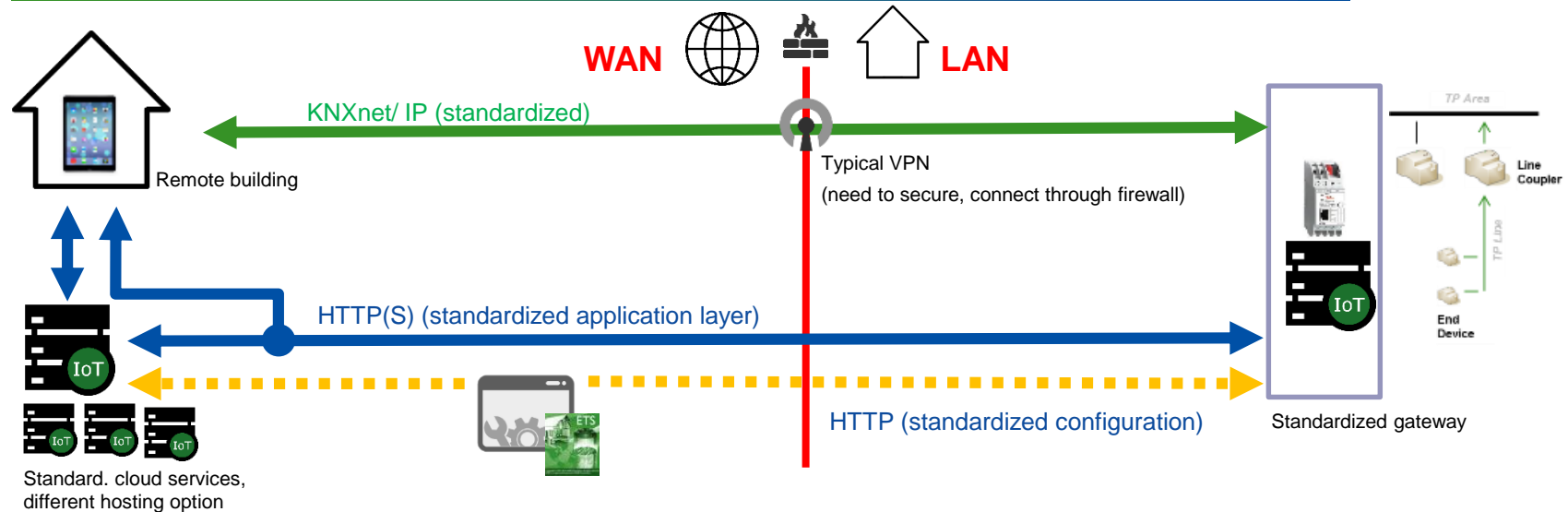
- Sample implementation (not a commercial product)
 - KNX WS Exporter APP (free of charge)
 - Sample client (free of charge)
 - Binary code of ObIX WS gateway realization on Raspberry PI (free of charge)
 - Unified KNX Information model
- IT world can speak native RESTful web services to KNX



ETS App WS Exporter

KNX IoT 2.0

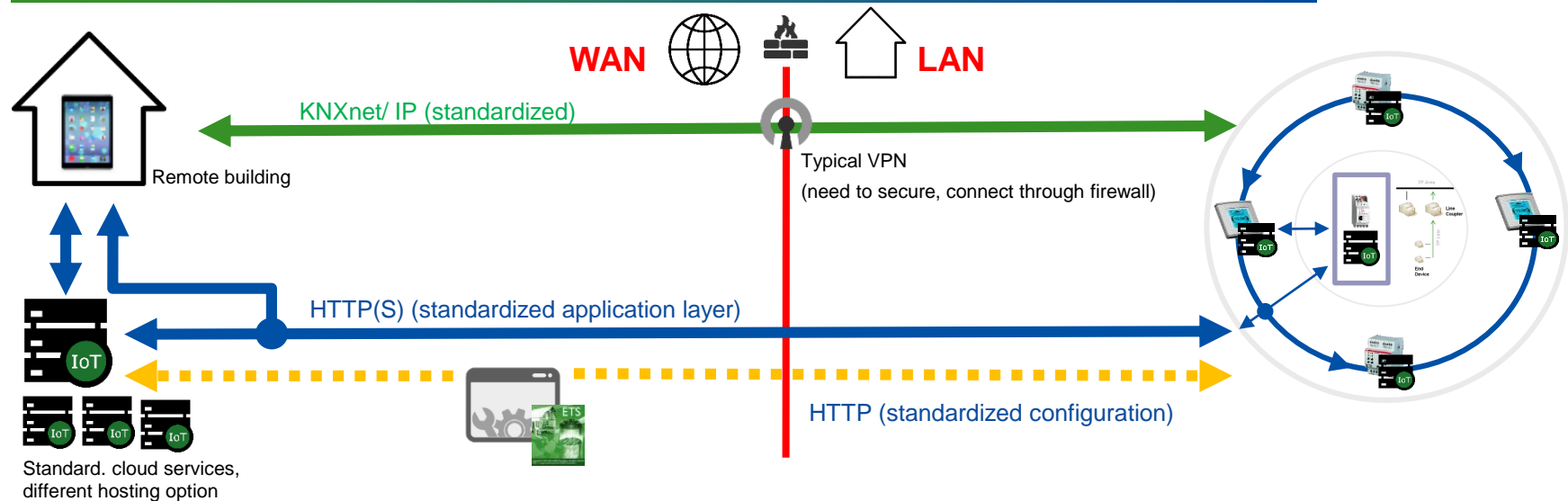
Plug and play internet connected web services (2018)



- Plug and Play internet connected web services
 - No port forwarding, no setting IP addresses of WS gateway, no VPN tunnels
- Extended semantics info model
- Combination with ETS Inside – extra web based tool for extra semantics input on gateway

KNX IoT 3.0

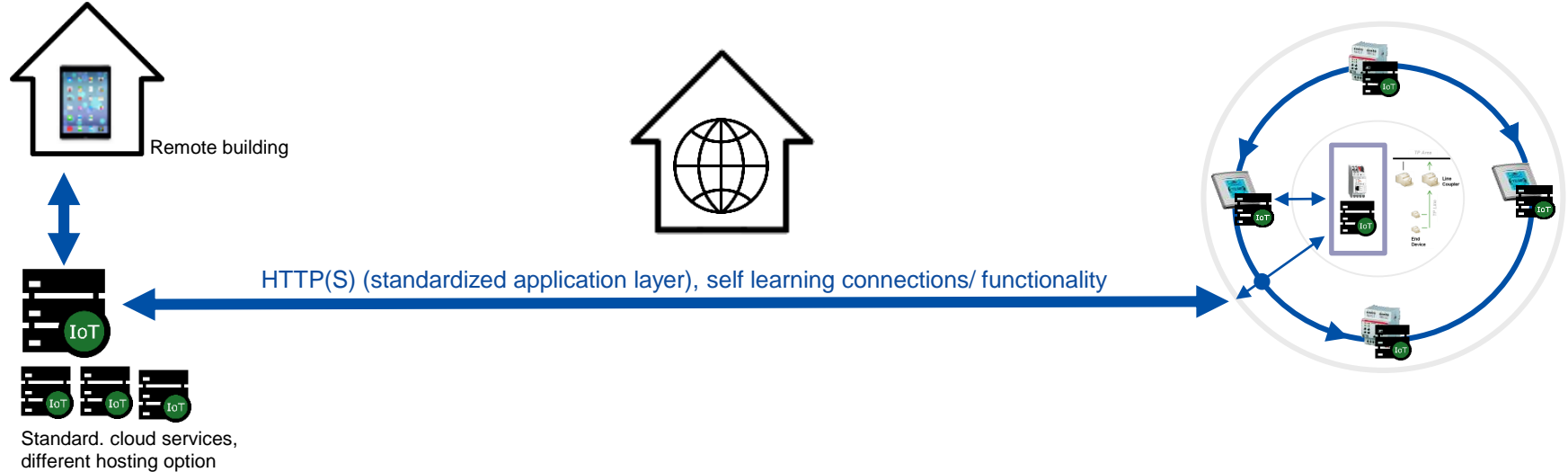
IP devices within KNX ecosystem (2020)



- KNX devices sit natively on IP
→ use IP to exchange their data, address legacy devices through gateway
- KNX semantic descriptions completed
→ much easier handling of devices during runtime and configuration
- Extended security model

KNX IoT 4.0

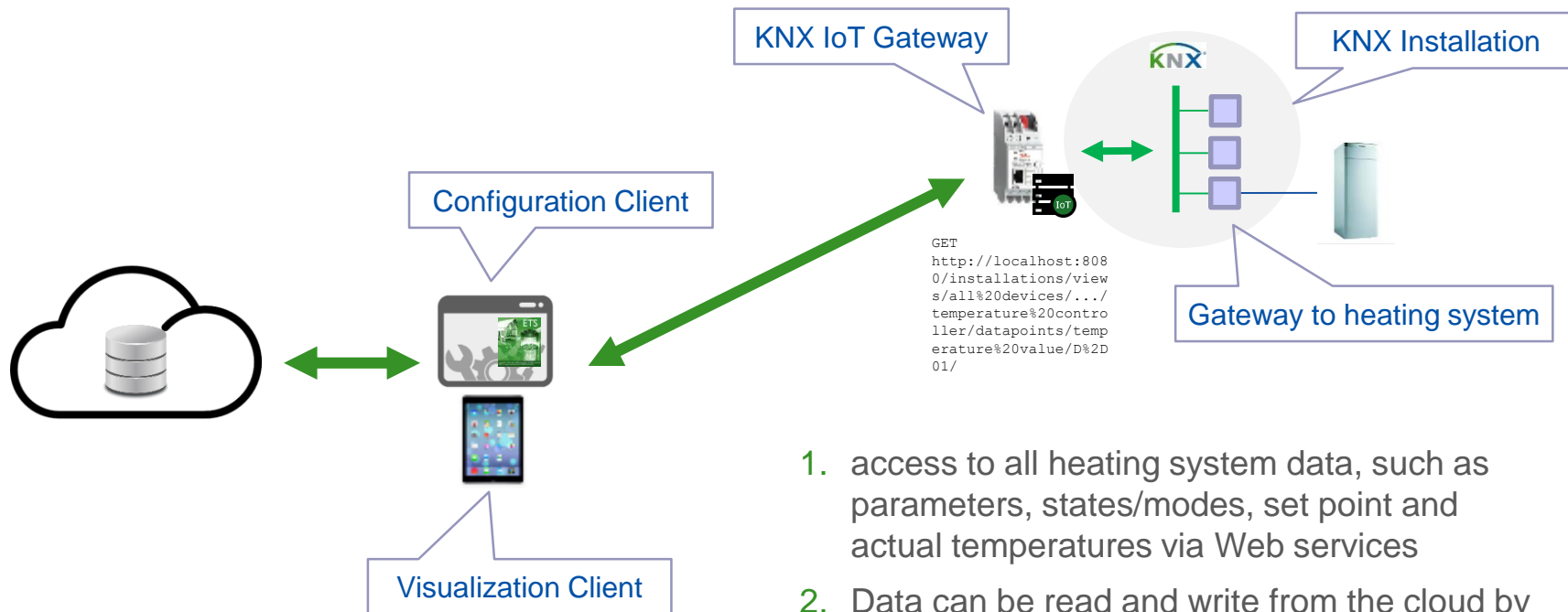
Self learning adopting systems (from 2020 onwards)



- KNX devices have also auto learning/configuration features

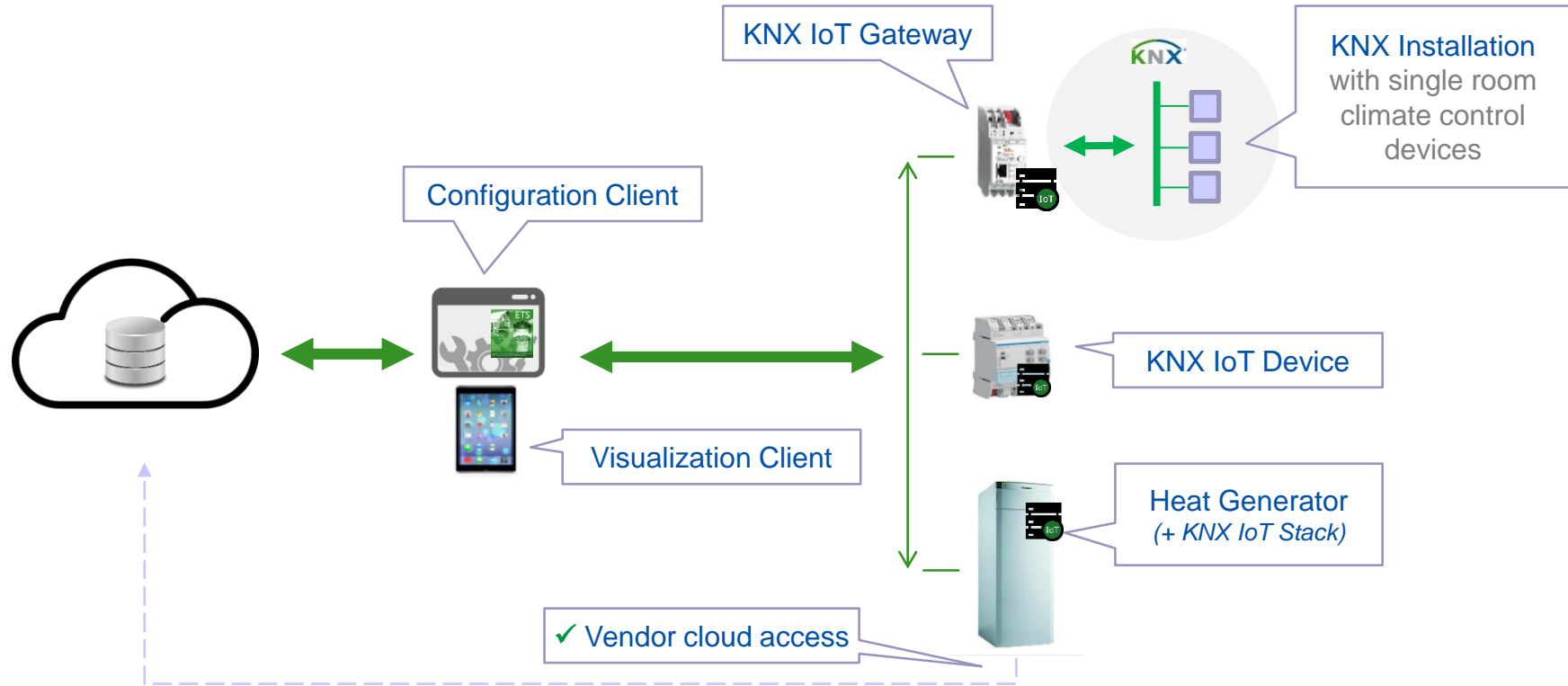
KNX IoT 1.0 / 2.0

Advantages for HVAC systems



KNX IoT 3.0

Advantages for HVAC systems



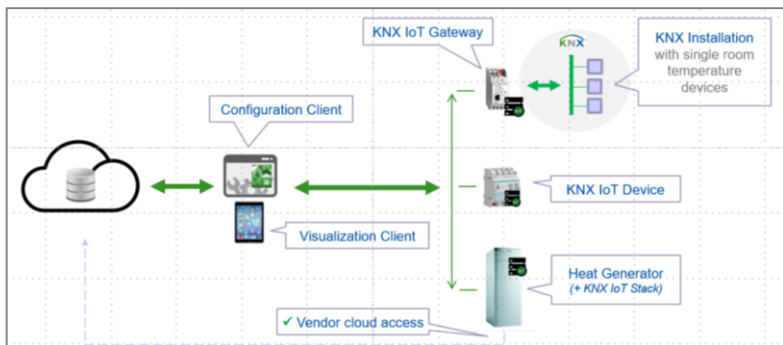
KNX IoT 3.0

Advantages for HVAC systems



Communication with the IoT world

- with existing hardware
- and without gateways



1. If the heating system already has an IP interface,
> it becomes a **native KNX IoT device** by integration of a KNX IoT stack provided by the KNX Association without any hardware changes
2. The heating system **communicates with other KNX TP devices** of the room automation via the KNX IoT gateway
3. **No gateways** are needed to exchange data with the Cloud or other KNX IoT devices
4. The data exchange with **KNX cloud services** as well as with vendor cloud services is supported

KNX IoT

More Information



Where can I find more information about KNX IoT?

www.knx.org
=> KNX IoT

go to KNX-Website

KNX IoT Solutions Download

KNX IoT

The "Internet of Things" is a buzzword in the world of information technology. What still has to become part of the general knowledge is already a long known term in expert groups for a new development boost. Everyday objects become intelligent and communicate via the internet. According to visionaries until 2020 50 Billions of such objects will communicate via the internet. However, the Internet of Things is not still up in the air but has become reality already today. Already for a long time the KNX Standard forms part of this global IoT world. By the introduction of the KNX Web Services KNX underlines its leading position and opens new ways in the operation and visualization of KNX systems.

KNX Flyers

KNX News

Check out the KNX IoT webinar recordings in 4 languages:

KNX and the Internet of Things - English

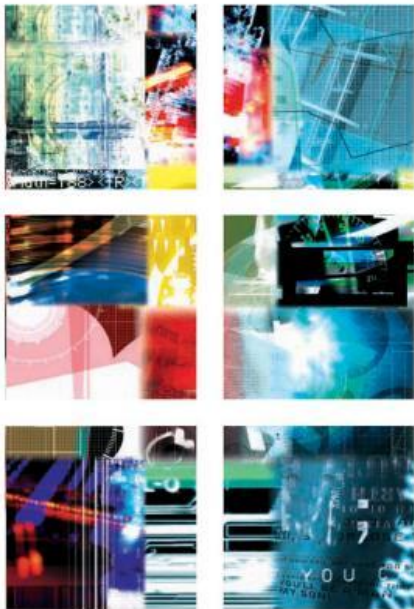
KNX and the Internet of Things

USB receiver per
Engineering
KNX IoT

- Current trend: APIs
 - Flexible different home automation solutions via a unified interface
 - In a central device in the installation
 - In your Smart Phone
 - In the Cloud
 - Advantages of these solutions compared to KNX
 - Increased complexity of the installation
 - No proven reliability of these solutions (yet)
 - Central device is weak spot in these concepts
 - But: Data is power!
 - Information on the user profiles of the smart thermostat could provide business opportunities
 - Offering of additional services → data mining
 - But: there is no solid need to be able to access every single data element in a homebuilding (e.g. occupancy tracks)

KNX: The worldwide STANDARD for home & building control

Webinar also available in: German - Spanish - French



KNX
The worldwide
STANDARD for
home and building control

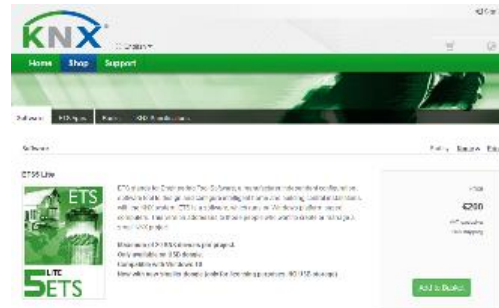
KNX Association International

www.knx.org

More info needed?



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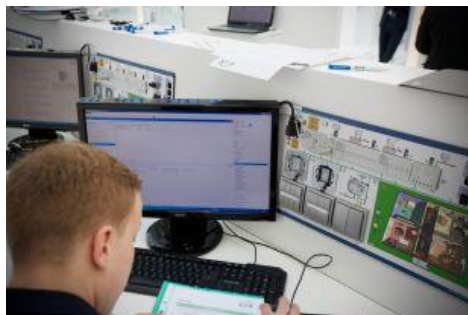


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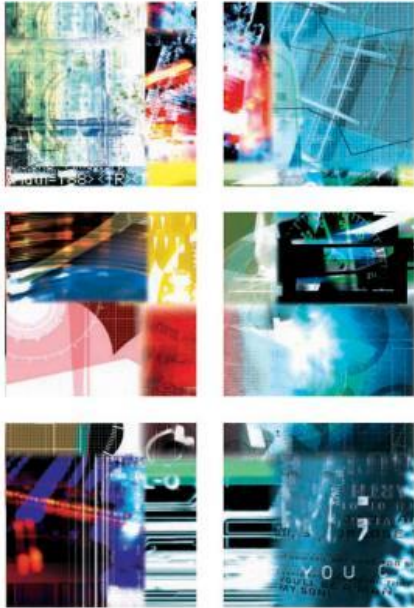


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**Thank you very much
for your attention**

For any questions – Contact

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