

# KNX IoT 1.0 Web Services

## Usage in ETS5

KNX Association  
2017

[www.knx.org](http://www.knx.org)

# KNX IoT 1.0 (Web Services)



## Agenda

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### Retrospect

#### KNX Web services - IoT 1.0

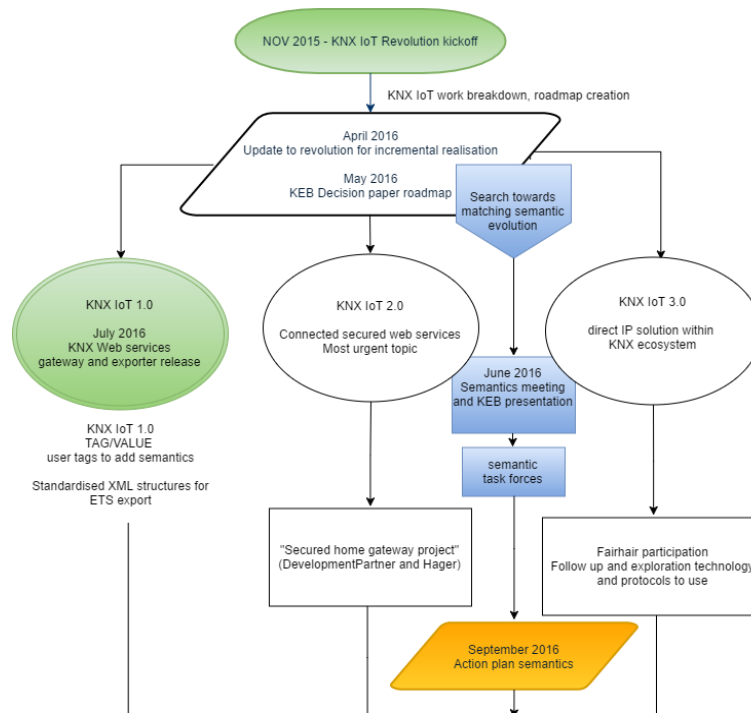
- Progress on KNX WS specification, oBIX, BACnet, OPC UA
- PoC Gateway Release
- ETS App WS Exporter Release
- Delivery Timeline/ Next Steps
- Life View

# KNX IoT 1.0 (Web Services)

## Retrospect

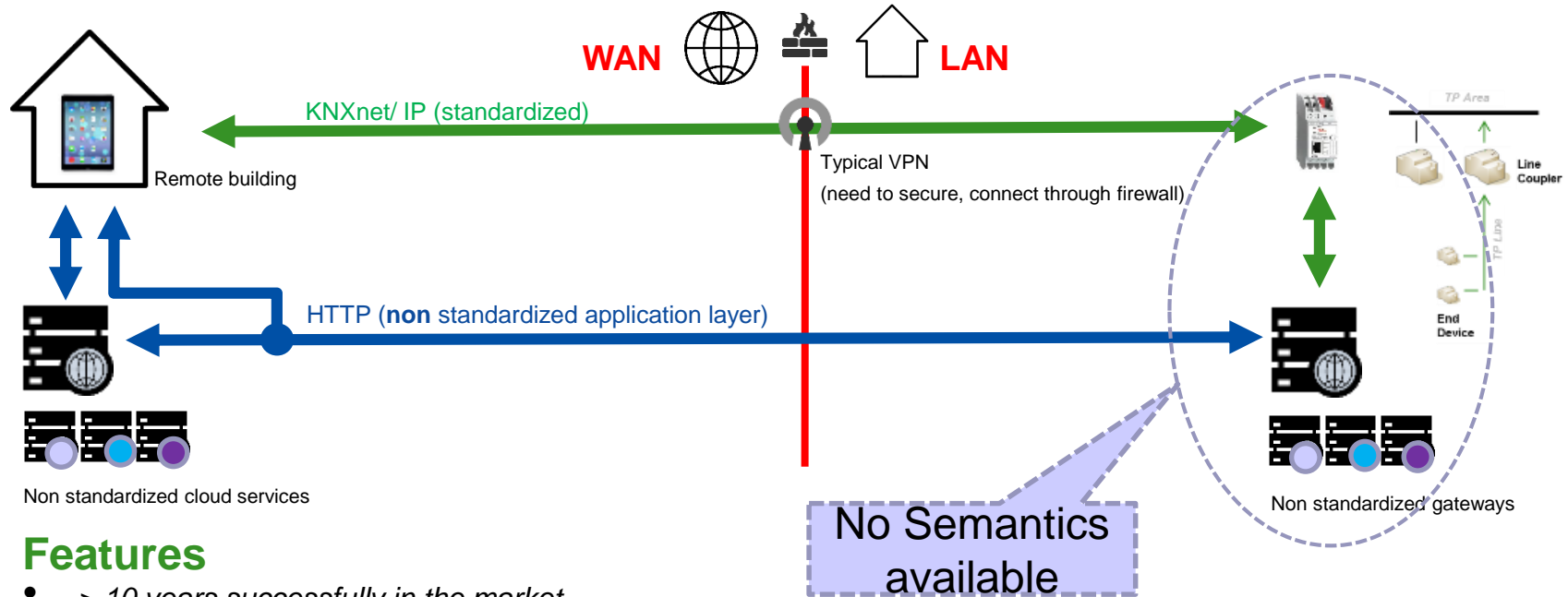


## KNX IoT Progress



# KNX IoT 1.0 (Web Services)

Retrospect, < 2016: KNX current ecosystem (KNXnet/ IP)

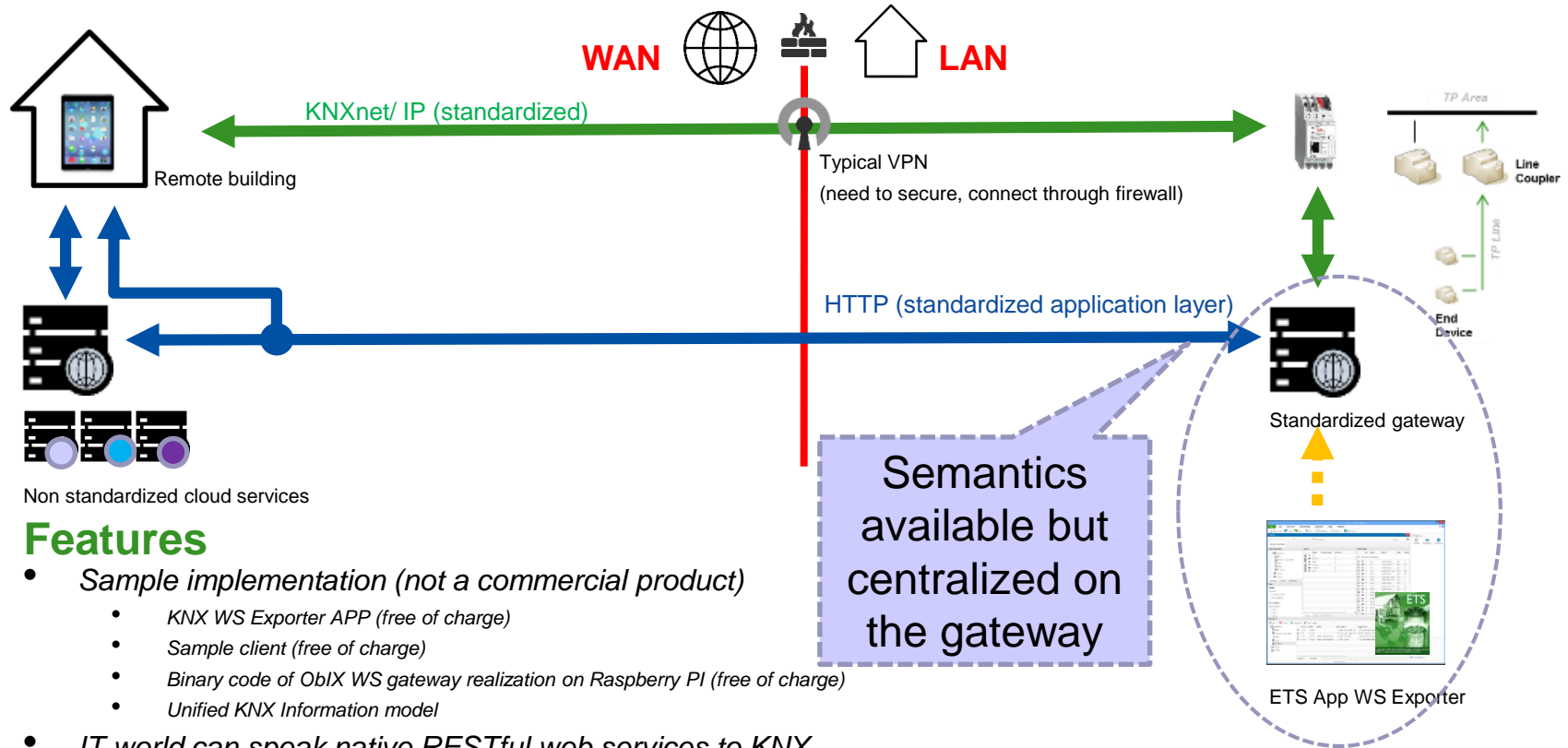


## Features

- > 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 (Web Services)

Retrospect, 2016: KNX IoT 1.0 (KNX Web Services)



## Features

- *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*

# KNX IoT 1.0 (Web Services)

## KNX IoT 1.0 specification additions

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### oBIX

- Already released

### BACnet additions

- A longer time has been dedicated to analyzing and answering to the detailed comments from the BACnet committee.
- Feedback from KSG Expert expected as well. The according update (v16) is available (not yet distributed).

### OPC/UA additions

- KSG Class had no comments to the proposal!

### Next Meeting

- December 7

# KNX IoT 1.0 (Web Services)

## KNX IoT 1.0



### ETS Web service exporter

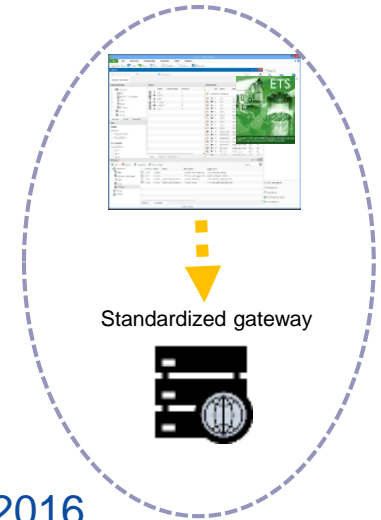
- Exporting common information model from within ETS

### KNX Web service gateway demo

- Demonstration of oBIX web services (as an PoC of KNX)

### Releases

- Released to manufacturers July 2016
- Released to public, free of charge in myKNX shop in September 2016



# KNX IoT 1.0 (Web Services)



## KNX IoT 1.0

Releases publicly announced in newsletters/ KNX Journal → [DE](#) / [EN](#) (page 4)

KNX Web Services Tools now Available

**We are glad to announce the** immediate availability of both the “KNX Web service exporter” ETS App and the “KNX Web service gateway”. They are both free of charge and can be downloaded from MyKNX.

The screenshot shows the MyKNX website interface. At the top, there is a navigation bar with the KNX logo, a language dropdown set to 'Nederlands', and a shopping cart icon. Below the navigation bar, there is a main menu with options: Home, Winkelen, Support, Mijn account, and Downloads. The main content area features a 'Software' section with sub-links for 'ETS Apps', 'Boeken', and 'KNX Specifications'. The 'KNX Web Service gateway' product is highlighted, with a price of €0. The product description states: 'Demonstration of the KNX Web services with a technology demo gateway oBIX implementation. Includes an image to be used on a Raspberry Pi 2, can import an information model created by the "ETS App Web service exporter".' A green button labeled 'Voeg toe aan winkelmand' is visible at the bottom of the product card.



# KNX IoT 1.0 (Web Services)

## KNX IoT 1.0



### KNX Web Service Exporter ETS App

Demonstration of the KNX Web service information model. Allows to create an XML file with the KNX information model from an ETS project. The exported project can be used with the KNX Web service gateway demo.

The screenshot displays the WsExporter application interface. The main window is divided into several sections:

- Export model folders:** A tree view showing the project structure, including 'Default Folder - MyHotel', 'Restrooms', 'Guest Rooms', and 'Conference Rooms'. A '1a' label is next to the 'Restrooms' folder.
- Devices:** A table listing various devices with columns for Name, Room, Address, Manufactur, Application, Tags, and Description. A '1b' label is next to the first row.
- Object pool:** A tree view showing the object pool structure, including 'MyHotel', 'East Wing', 'West Wing', 'Main Building', and various floors. A '2a' label is next to the 'MyHotel' folder.
- Rooms:** A table listing rooms with columns for Name, Numbe, Tags, and Description. A '2b' label is next to the first row.
- Properties Sidebar:** A sidebar on the right showing the properties of the selected object, including Name, Description, and Tags. It also includes a 'remove tag' button and a 'lighting' tag.

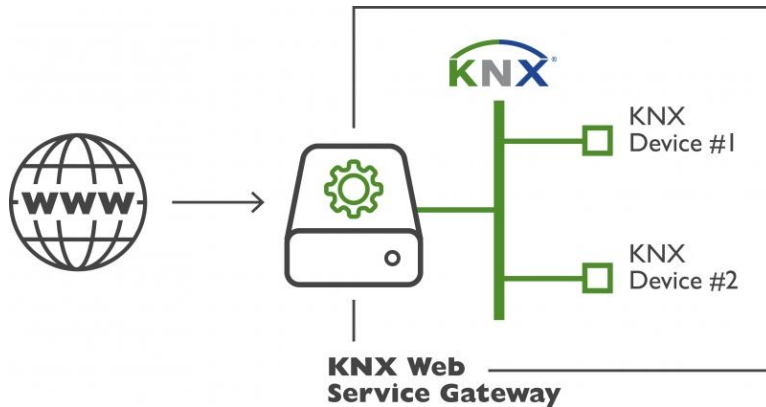
# KNX IoT 1.0 (Web Services)



## KNX IoT 1.0

### KNX Web Service Gateway

Demonstration of the KNX Web services with a technology demo gateway oBIX implementation. Includes an image to be used on a Raspberry Pi 2, can import an information model created by the "ETS App Web service exporter"



## KNX Web Services

KNX IoT Delivery Timeline/ Next Steps

# KNX IoT 1.0 (Web Services)

## KNX IoT Delivery Timeline/ Next Steps



### Webservice Documents

- KNX WS specification/ interface OBIX released → [Documents](#)

### Next steps/ Release

- KNX WS specification/ interface BACnet/WS has been published to KNX members, target is to put it in the KNX Technical Board **July** voting cycle
- KNX WS specification/ interface OPC UA is currently being elaborated (target is 07/2016)

### ETS App Webservice Exporter / Sample Gateway Raspberry PI

- Information to KNX members and registered customers → **Done**

### Release

- Official release for KNX members : 07/2016 → **Done**
- Official release for end customers : 09/2016 → **Done**

### Next Steps (planned for near 2017)

- Implementing UI improvements for Webservice Exporter
- Implementing customer/ manufacturer feedback according to specification/ gateway usage

# KNX Web Services

Life View with PI 2 and ETS5

**Thanks for your attention!**