IQ Home - Eco System

Simply, without wires...

Gateways, Sensors and Actuators

LinkIt! - Manage your gateway over MQTT

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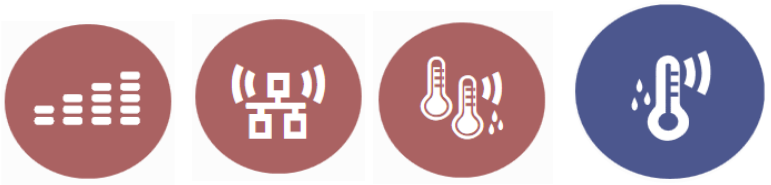


✓IQ Home Eco System

Ready to use IQRF Inside products together

Building parts (IQRF Inside products):

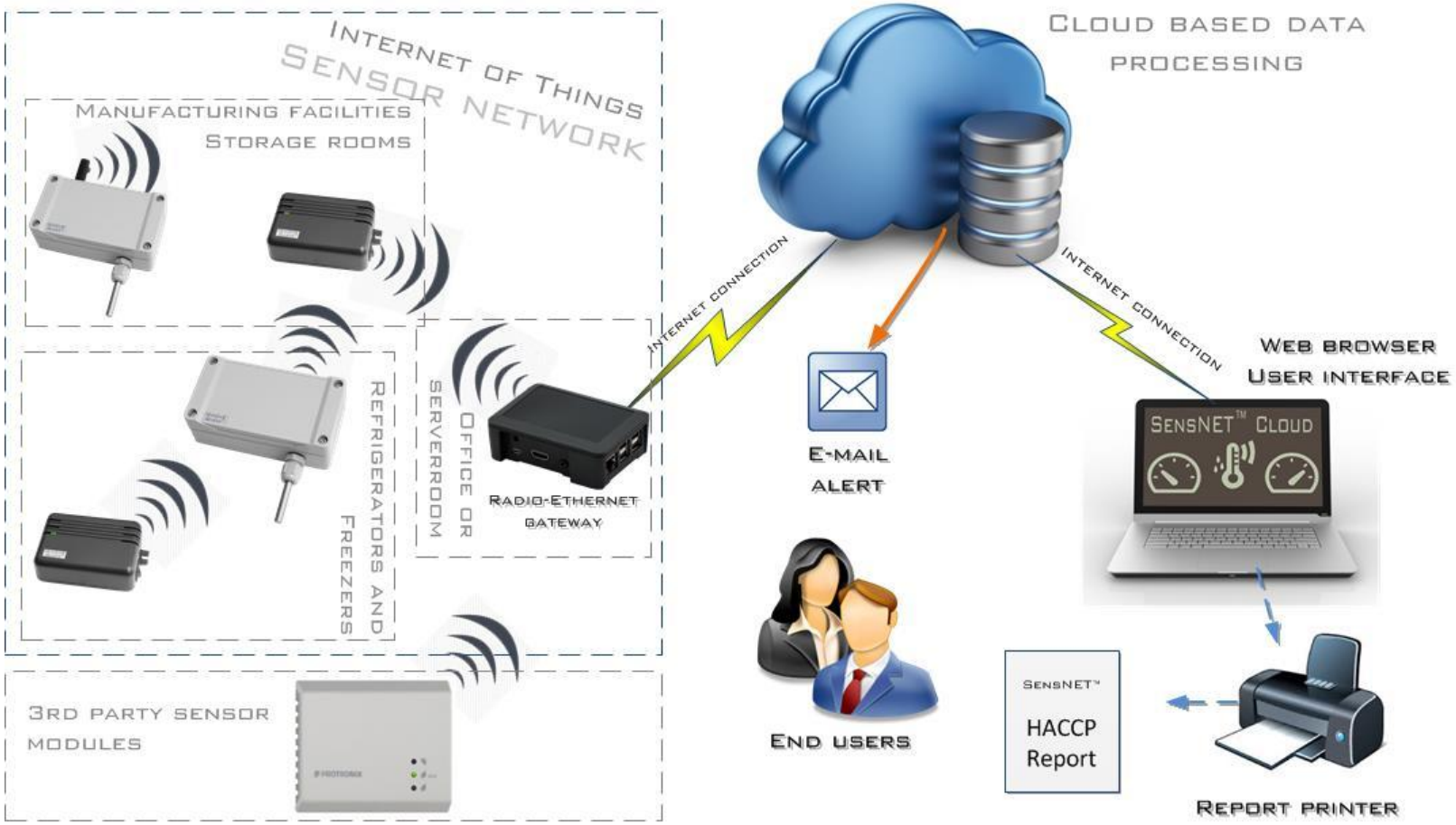
- **IQ Home Sensors**
- **IQ Home Actuators**
- **IQ Home Universal Gateway**

Software backend:

- **IQ Home MQTT Broker**
- **IQ Home Visualization**

IQ Home Eco System

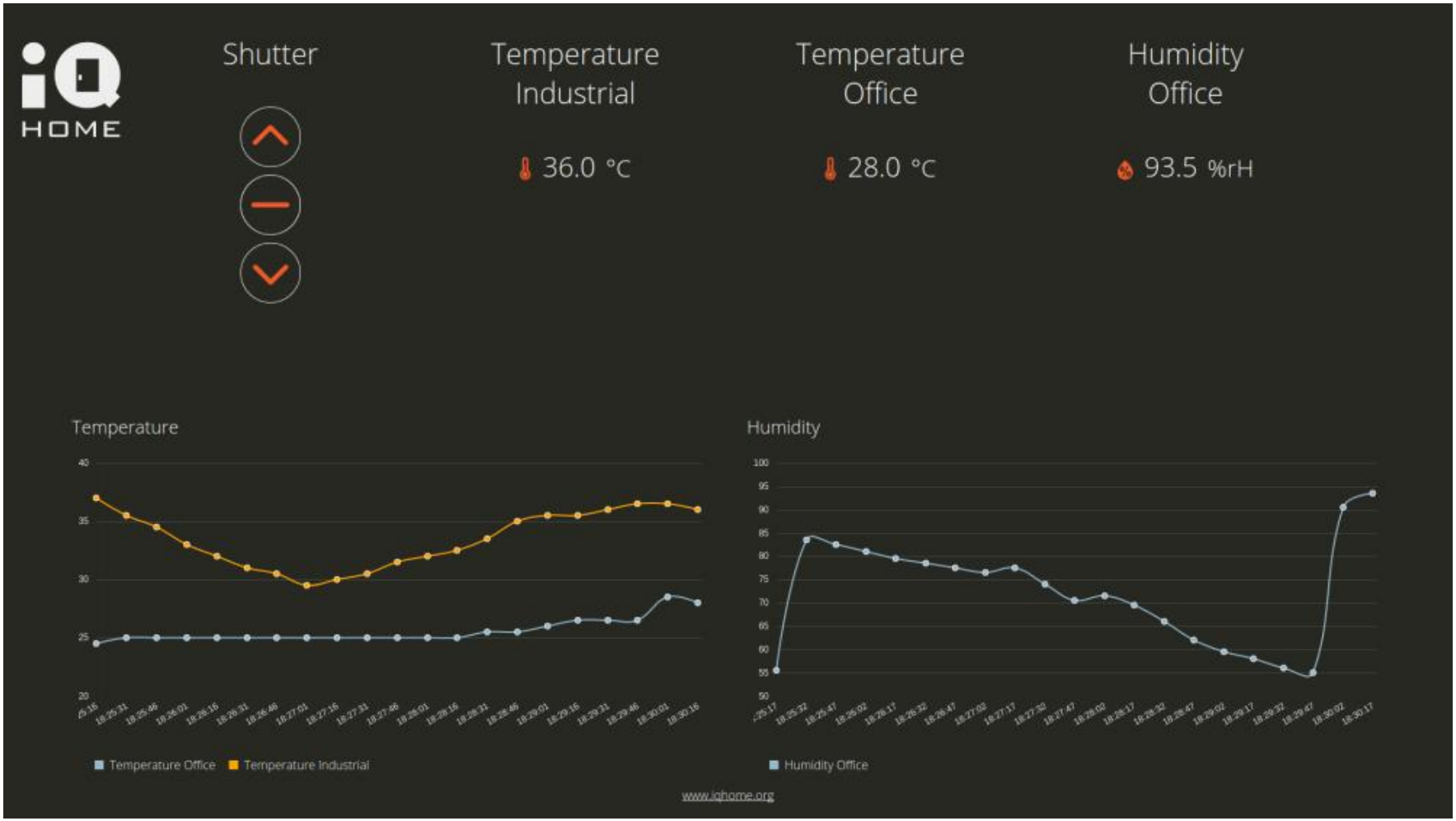
Putting the sensors, actuators, universal gateway together to get full solution:



IQ Home SensNET™

http://www.iqhome.org/products/sensnet

You have to write only some easy to use user interface:



http://www.iqhome.org/products/sensors

IQ Home Sensors family

IQ Home Sensors family

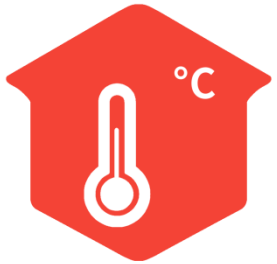
http://www.iqhome.org/products/sensors

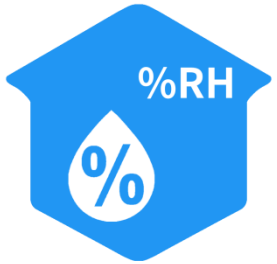
- ✓ Ready to use ambient sensors
- ✓ Office, home or industrial usage
- ✓ Various configurations:
  - ✓ Temperature
  - ✓ Relative Humidity
  - ✓ CO_2 level measurement
- ✓ Based on IQRF DCTR modules
- ✓ 100 % DPA compatible
- ✓ Open command set
- ✓ Fast response command data collection possibility
- ✓ Precise sleep implementation
- ✓ Battery powered, fully wireless

IQ Home Sensors family

http://www.iqhome.org/products/sensors

- ✓ IP30 case for office or home usage
- ✓ IP65 case for industrial usage
- ✓ 0.0625 °C resolution
- ✓ 0.0625%rH resolution
- ✓ 10000 ppm maximum CO_2 measuring range
- ✓ -40°C ... +85°C operating temperature range
- ✓ -40°C ... +125°C sensing temperature range (with external sensor)
- ✓ Customizable on request
- ✓ Available with local LCD





http://www.iqhome.org/products/actuators

IQ Home Actuator Family

IQ Home Actuator family

http://www.iqhome.org/products/actuators

- ✓ Matrix Control
  - ✓ Control up to 239 Relays with one RF Command
  - ✓ Maximum 952 Controllable relays in one network
  - ✓ Based on Acknowledged FRC command
- ✓ Typical application:
  - ✓ Industrial lighting
  - ✓ Outdoor lighting
  - ✓ Heating kontrol

Matrix Control

IQ Home Actuator family

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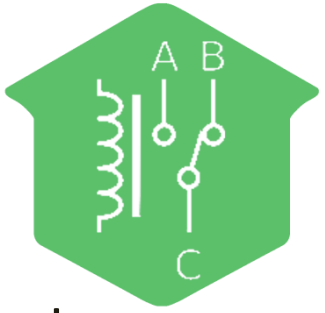


- ✓ Two separate relay in on device
  - ✓ SPDT Relays up to 10 A or 16A
- ✓ Matrix control with on RF Command
  - ✓ Control up to 239 Relays with one RF Command
- ✓ Timeout Control and Power On Control
  - ✓ To Prevent devices if the network connection is broken
- ✓ Various power supply possibilities:
  - ✓ 230 VAC
  - ✓ 12 - 24 VDC

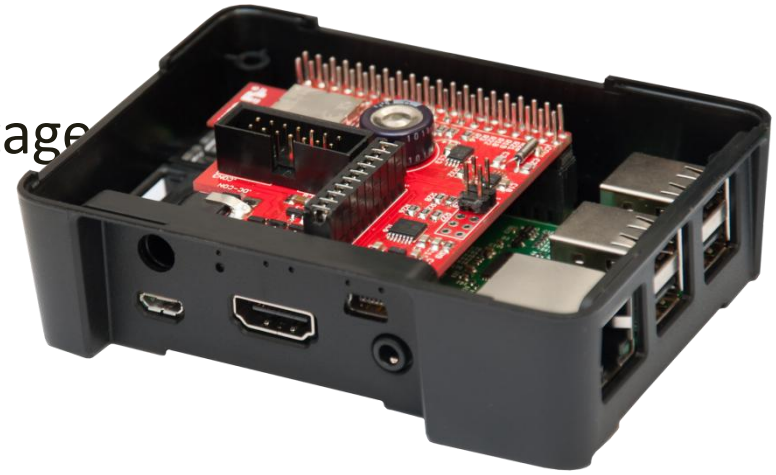
http://www.iqhome.org/products/uni-gw

Universal IQRF Gateway
With MQTT Support

Universal IQRF Gateway

http://www.iqhome.org/products/uni-gw

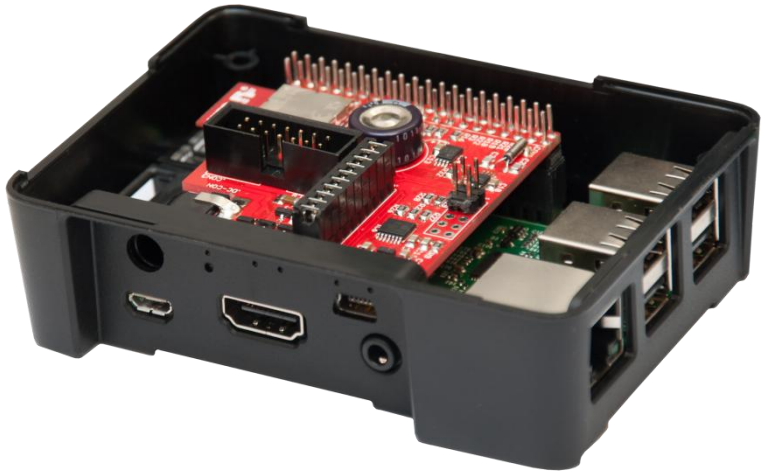
- ✓ Connects IQRF network to the Internet
- ✓ Easy to create IoT sensor networks
- ✓ Easy to integrate with IQRF based sensors
- ✓ CK-USB-04A programmer compatible
- ✓ Supports SIM type and SMT IQRF modules
- ✓ Ready to use gateway
- ✓ Based on Raspberry Pi B+
- ✓ Custom extension board support
- ✓ RTC on board in case of power outage
- ✓ Protected EEPROM storage



Universal IQRF Gateway

http://www.iqhome.org/products/uni-gw

- ✓ IQRF IDE UDP communication support
- ✓ MQTT support
- ✓ JSON message payload support
- ✓ Automated periodical data collection
- ✓ Priority message queues
- ✓ Automatic DPA network timing management
- ✓ Automatic DPA timeout management
- ✓ Remotely configurable
- ✓ Remote monitoring possibility
- ✓ Remote IQRF IDE connection with Link It!™ software



Universal IQRF Gateway

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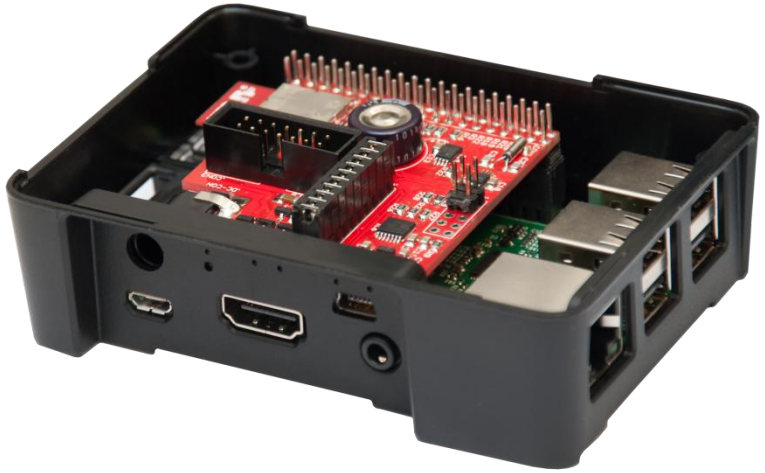
✓Supported Cloud solutions:



Mosquitto

An Open Source MQTT v3.1 Broker

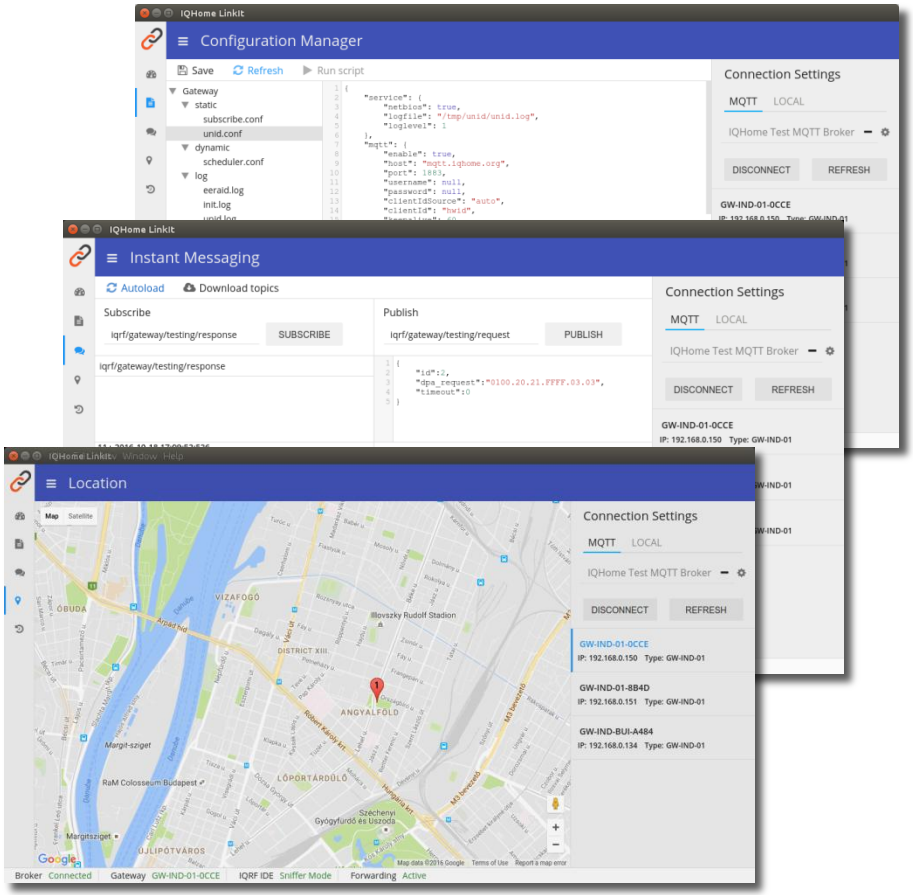
IQ Home - Link It!

http://www.iqhome.org/products/uni-gw

Remote connection with

IQ HOME - Link It!™

- ✓ Monitor your gateway over MQTT protocol
- ✓ Configure your gateway over MQTT protocol
- ✓ Run Scripts remotely
- ✓ Connect IQRF IDE to Universal Gateway over MQTT

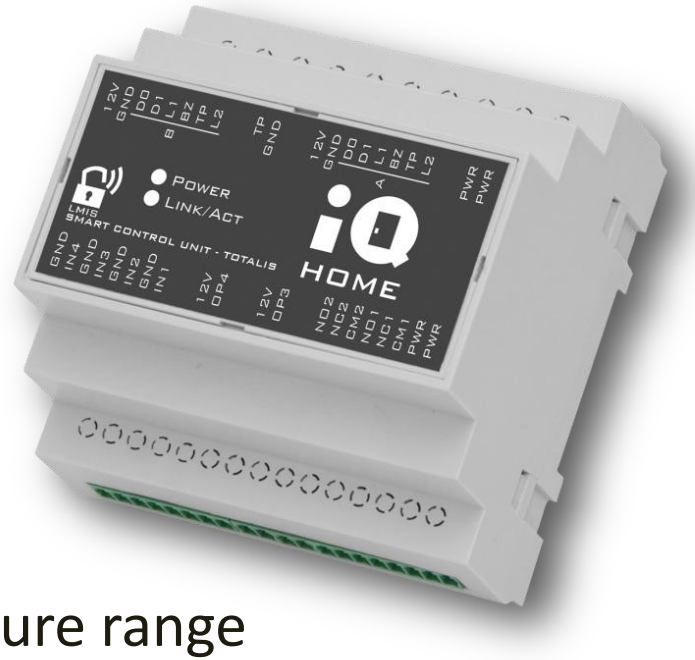


Industrial gateway

http://www.iqhome.org/products/uni-gw

Near future:

Industrial Gateway



- ✓ Industrial solution
- ✓ DIN Rail mountable
- ✓ Power Over Ethernet possibility
- ✓ Battery power backup possibility
- ✓ -25°C to +70°C working temperature range
- ✓ Additional IP65 case for industrial and outside usage
- ✓ LTE and 3G support
- ✓ GPS Support
- ✓ Protected EEPROM and Flash storage
- ✓ Software compatible with Universal Gateway

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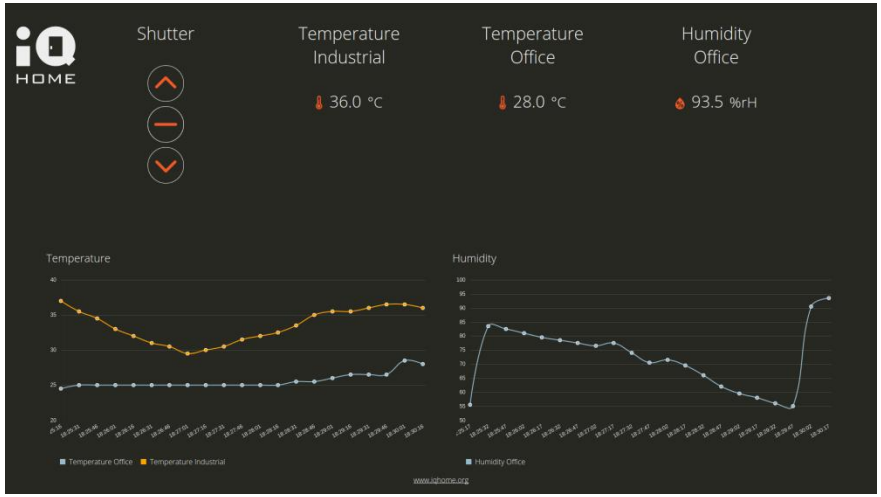
Universal gateway vs. Industrial gateway

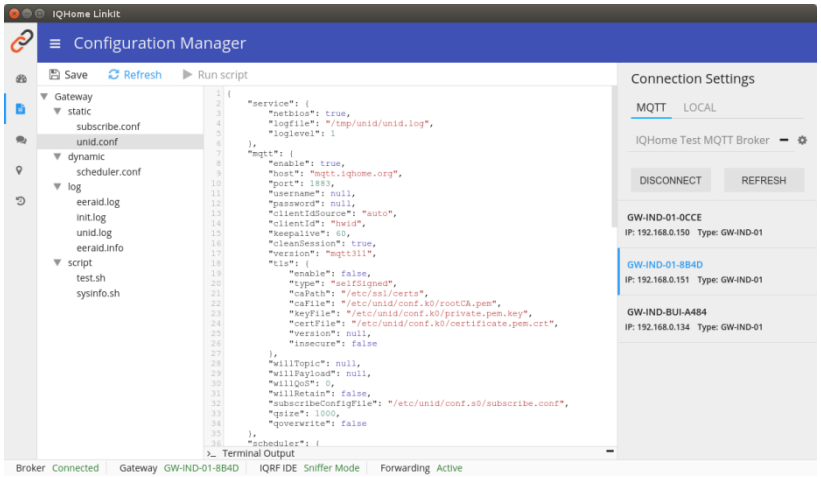
Features	Universal Gateway	Industrial Gateway
Boxing	Desktop use	DIN Rail
Power	5V	9V-16V
Temperature range	0 °C - 50 °C	-25 °C - 70 °C
Battery backup	X	✓
2G/3G/4G support	X	✓
Real Time Clock	✓	✓
RAID EEPROM	✓	✓
RAID FLASH	X	✓
External watchdog	X	✓
Self Healthcare monitoring	X	✓
PoE Support	X	✓

IQ Home Eco System™

Let's see the live demos!

Live IQ Home - Link It!™ demo:

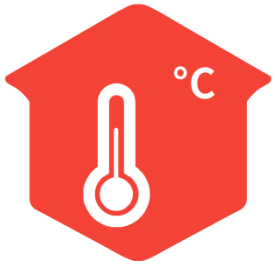


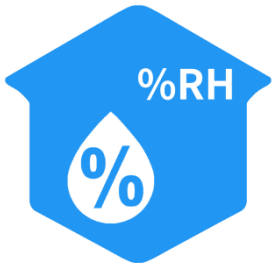


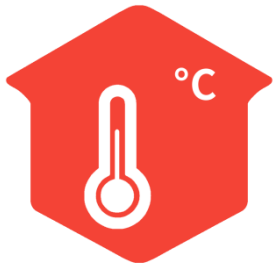
Live MQTT demo
@ Conference in Warsaw:
http://iot.iqhome.org

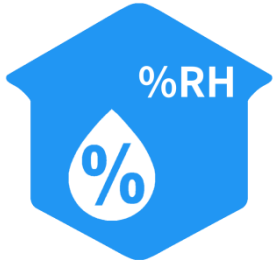
IQ Home Eco System™

Let's see the live demos!









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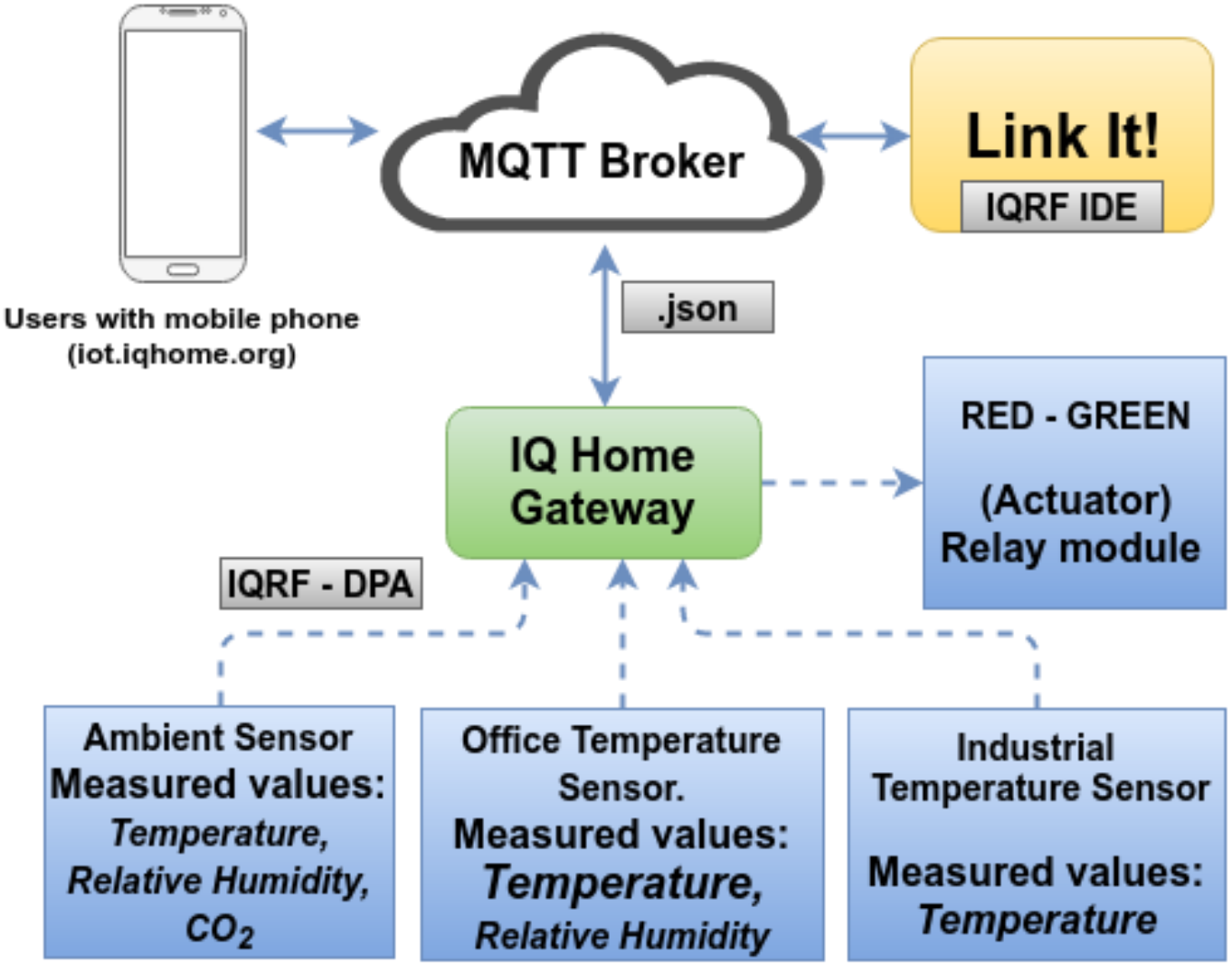
IQ Home Eco System™

Let's see the live demos!



Let's see the live demos!

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Thank you!

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