

Small Devices, Big Impact.

Digital Ecosystem & the
advantages of integration



Belimo Company Facts

Successful by focusing on HVAC field devices



Founded: 1975
Headquarters: Hinwil
Switzerland



Listed at the Swiss Stock
Exchange since 1995.



Over 100 million actuators for
the control of HVAC in the field.



Approximately 2, 000
employees worldwide in over
80 countries on all continents.



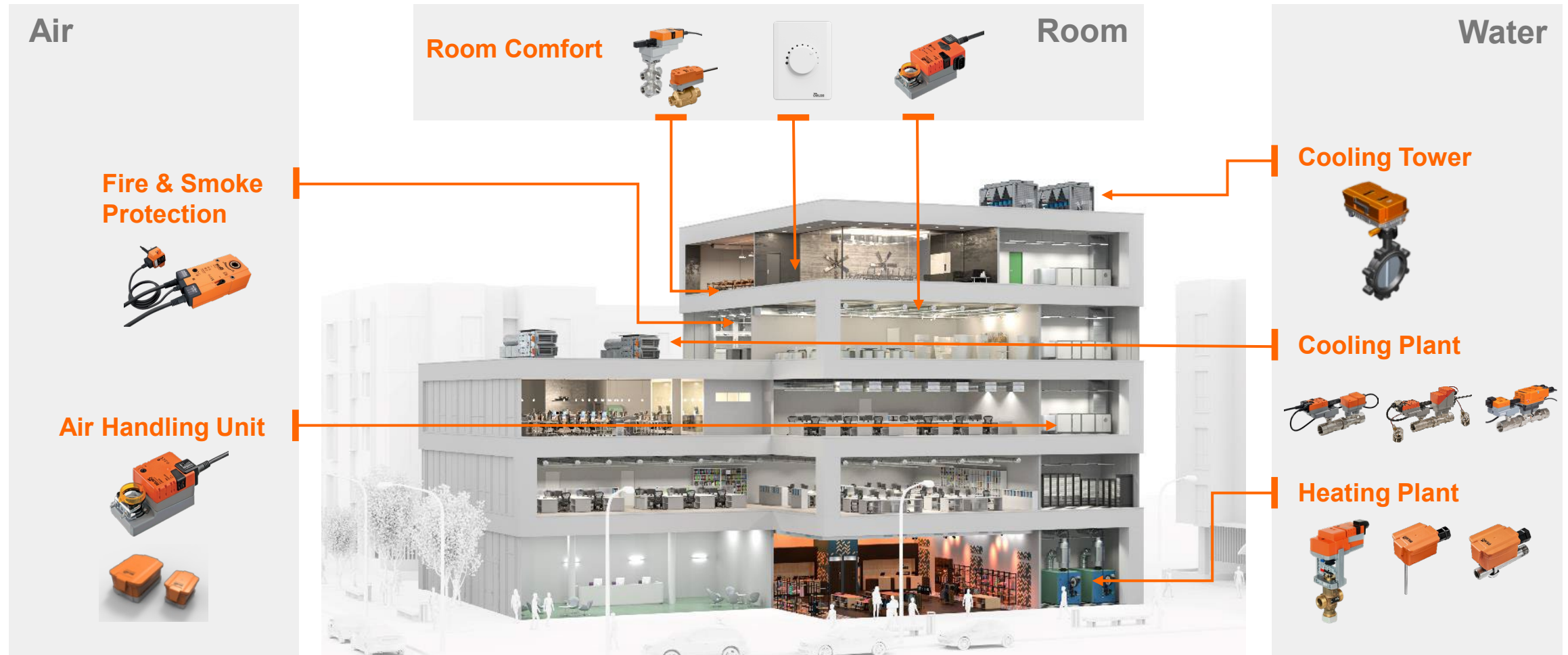
We invest more than 7% of
our sales every year in
research and development.



Global market leader in the
development and production of
field devices for the regulation
and control of HVAC systems.

Applications

Heating, ventilation and air conditioning in buildings



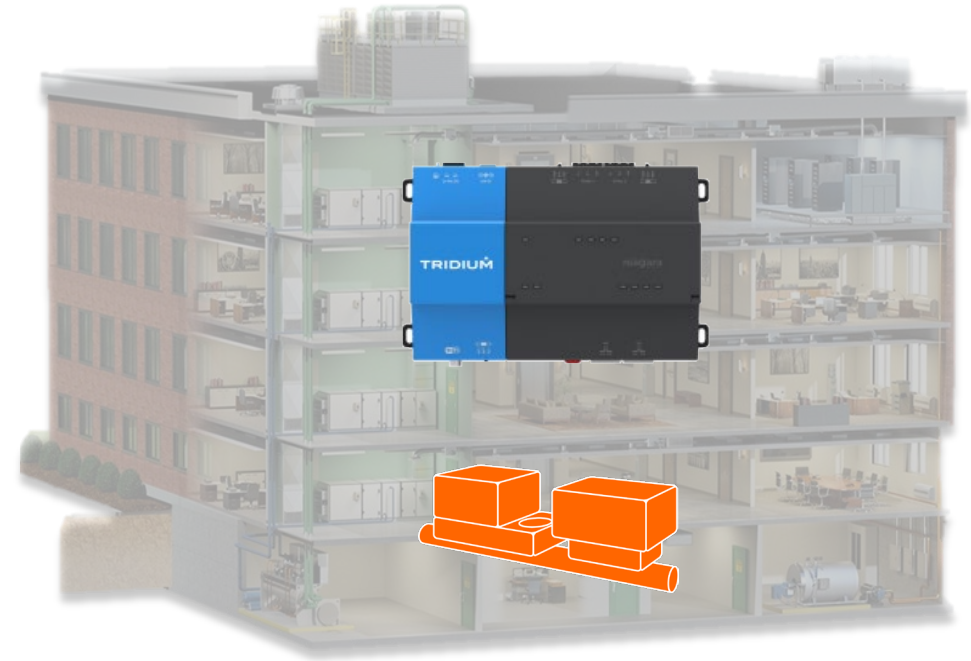
Integration

Enable Smart Buildings



We aim to provide **valuable device data** in order to **increase transparency** in a building. Thanks to this transparency, operation can be optimized, and overall energy consumption reduced – in new systems as well as in retrofitting or renovation projects.

Our products are always integrated into a system and therefore **connectivity has always been a key feature of our products.**



Analog



Belimo Cloud Ecosystem

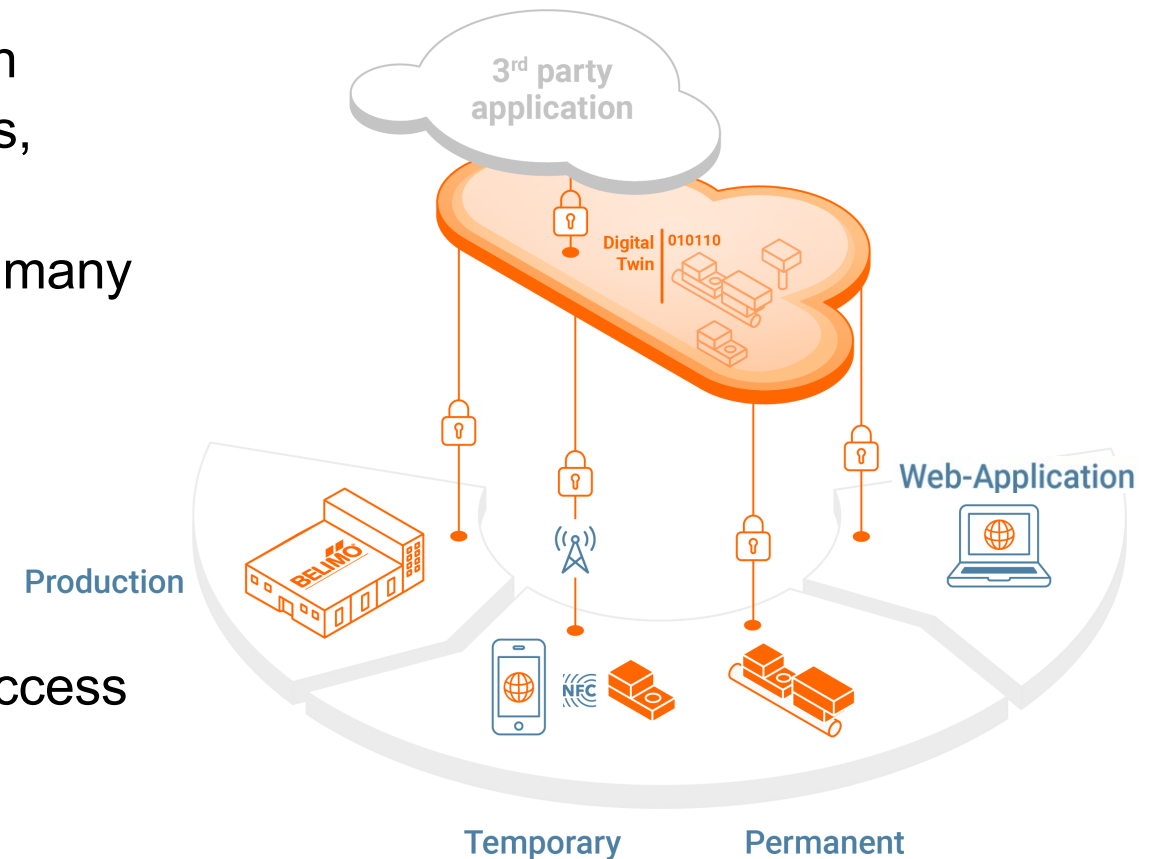
Be ready for the future



The **Digital Twin** is the point of connection between Belimo IoT devices and the digital world of Analytics, Fault Detection and Diagnostic FDD, Billing, Asset Management CMMS, Predictive Maintenance, and many others

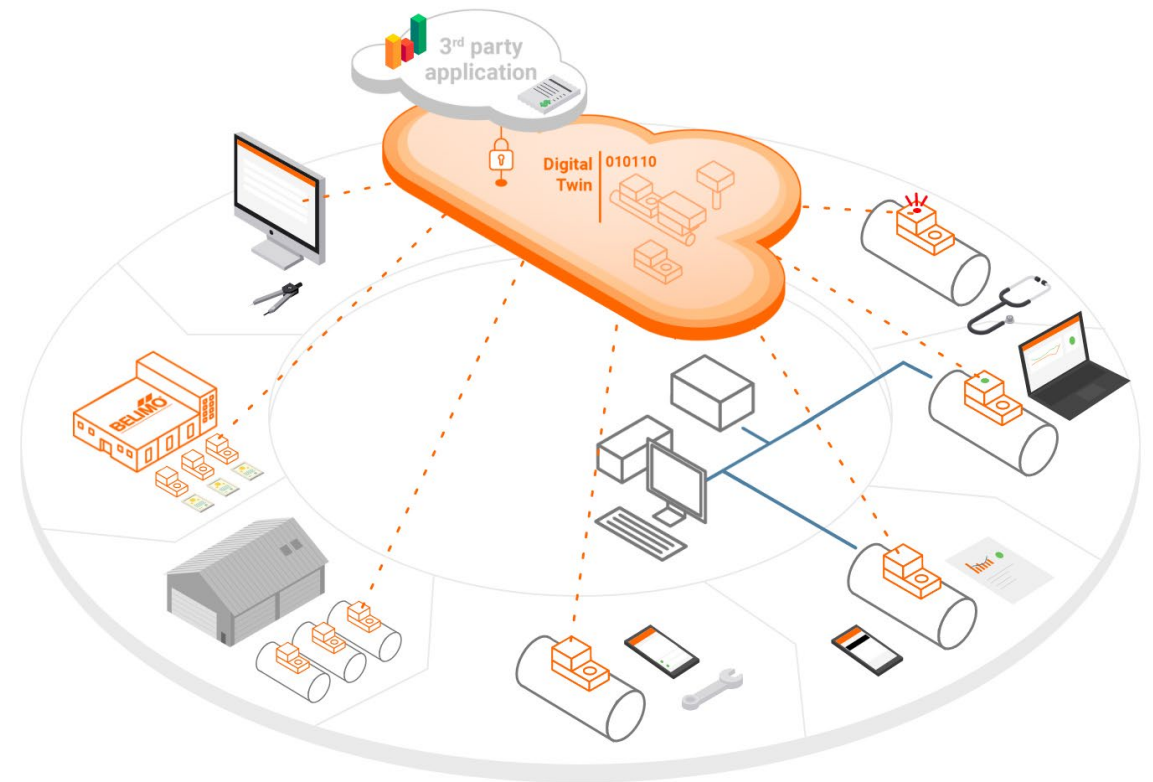
IoT-enabled products

- Permanent Ethernet connection
- Temporary data synchronization and/or remote access via Smartphone (via NFC)



Valuable data over the entire lifetime

Historical data, commissioning, performance and water calibration reports, backup of device settings are just some highlights that can be offered thanks to the digital twin.



Simplifying workflows

Paperless commissioning

Our ecosystem allows us to offer further product related services like **paperless commissioning**.

- Completely digital planning process
- Paperless & transparent commissioning with the smartphone
- Actual project progress can be viewed at any time
- Creation of the commissioning report at the push of a button



Niagara Driver

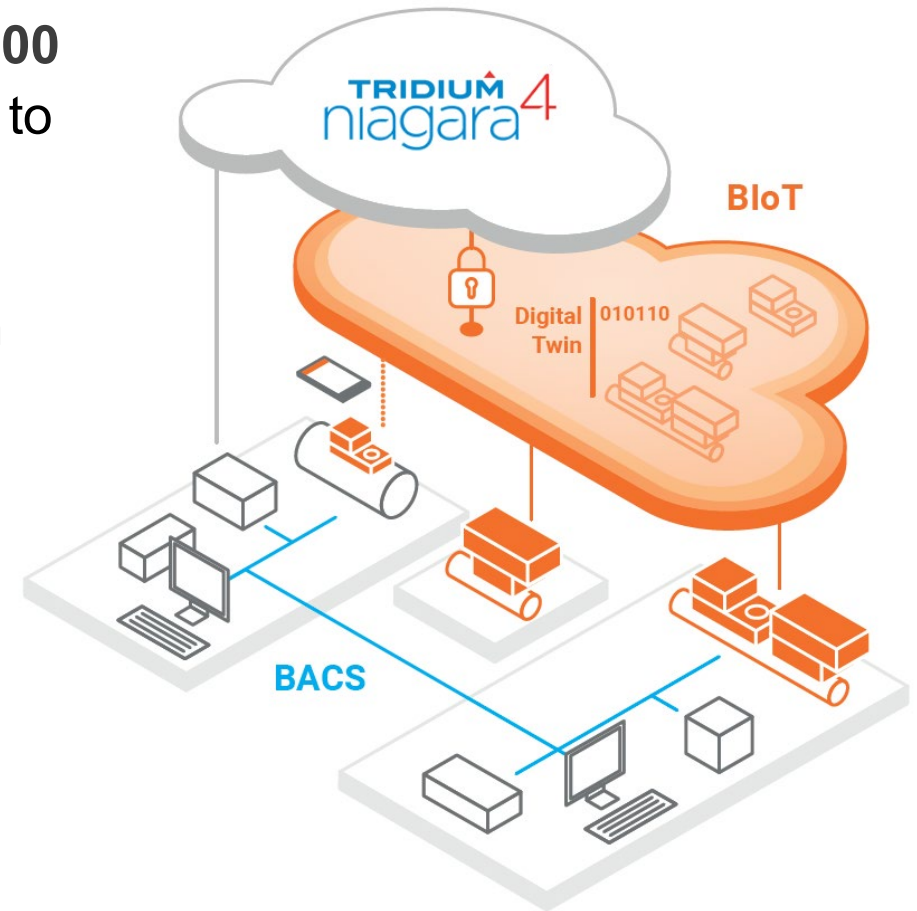
Integration is easier than ever before



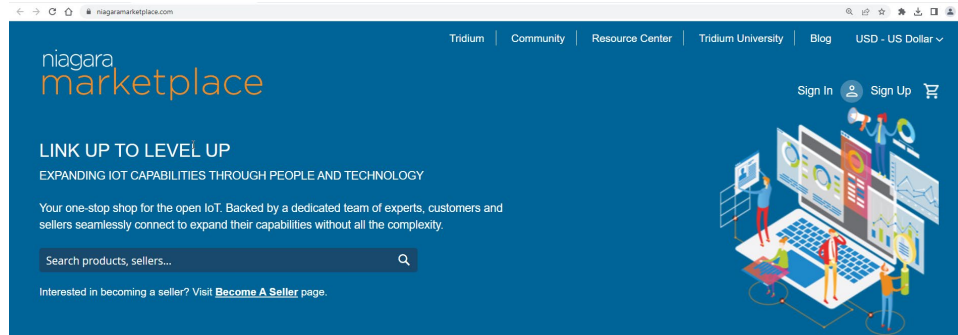
The driver allows **Tridium Niagara 4 supervisor, Jace 8000** and any other device running a Niagara station to connect to the **Belimo Cloud Ecosystem**.

The **interaction** with the digital twin **becomes easier** than ever before.

It implements the **Belimo Cloud API**, and it has been developed within the Belimo Developer Space framework.



Niagara Marketplace



This driver has been developed by Inlon Engineering, and it is distributed for free on GitHub: <https://github.com/inlon-engineering/niagara-belimo-iot>

What can it do



Once the connector is active and properly configured, it is possible to **discover the digital twins of the devices** belonging to a specific Belimo ID and import them in the local Niagara Database

Belimoiot Discovery

Discovered

Deviceid	Devicename	O
a5690dde-be6f-46fd-983e-e9beb3aa7d00	PublicIoT Actuator V1.02	IA
108a36f6-6466-4988-b9b0-a3efd2005c42	EV54_EVNG_Feldtest_22011-30054-022-246	GZ
ff265b95-ff7b-4d65-952b-f7087862df05	EV53_EVNG_Feldtest_22011-30053-022-246	GZ
02f4e962-922e-499f-9e31-90210a6e17da	EV52_EVNG_Feldtest_22011-30052-022-246	GZ
0c5aa95d-509e-4d66-b53c-5e2883b850d1	Heute LD5 670	GZ
73ffd901-27b6-464a-a37b-2c717c3d36ab	EV4_EVNG_ERGON-TB_A3	GZ
6f661025-ac12-46e0-9fe3-756fbd183227	EV4_EVNG_Feldtest_IER03	GZ

Database

Name	Type	Exts	Status	Deviceid	Devicename
BelimoloTDevice	Belimo IoT Device		{ok}	ff265b95-ff7b-4d65-952b-f7087862df05	EV53_
BelimoloTDevice1	Belimo IoT Device		{ok}	02f4e962-922e-499f-9e31-90210a6e17da	EV52_

What can it do



Get **normalized data points** for the **Niagara** environment and map them directly to the Belimo digital twin data points' properties

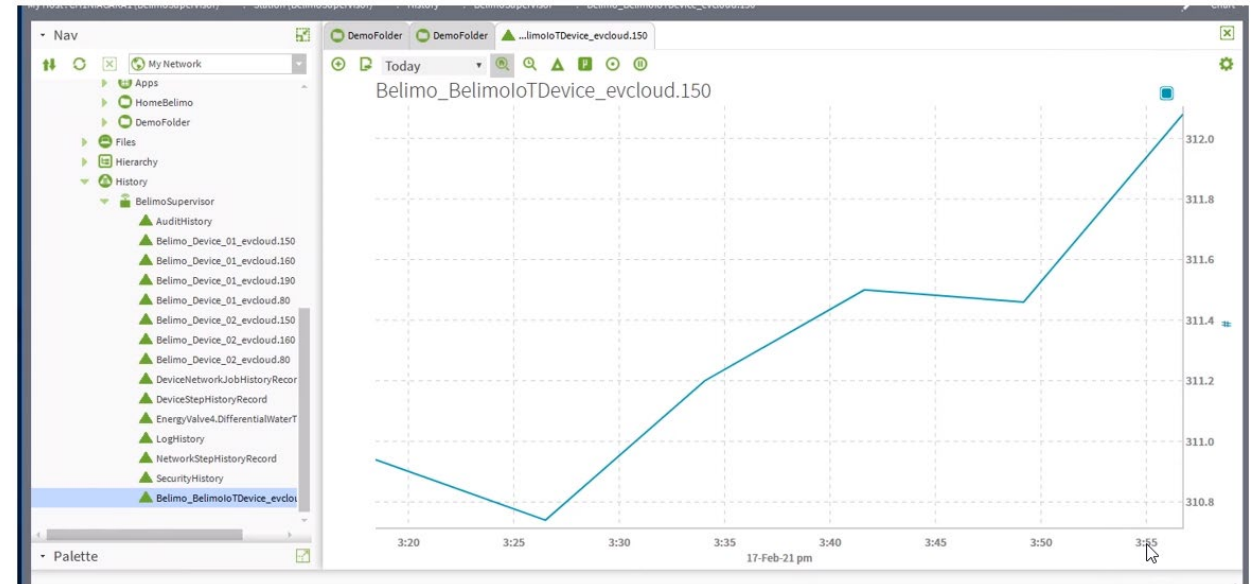
The screenshot displays the Belimo digital twin interface. On the left, a tree view under 'Nav' shows the hierarchy: My Network > NiagaraNetwork > BelimoDigitalEcosystem > Points > T1_remote_K. Below this is a 'Palette' section with a search bar containing 'belimoiot' and a list of Belimo components. On the right, the 'Property Sheet' for 'T1_remote_K (B Numeric Point)' is shown, detailing various attributes and their values.

Property Sheet	
T1_remote_K (B Numeric Point)	
Facets	units=null,precision=1,min=-inf,max=+inf
Proxy Ext	Belimo Io T Proxy Ext
Out	311.0 {ok}
Description	Temperature 1 remote in K
Point Caption	Temperature 1 remote
Pointid	evcloud.150
BelimoIoTHistoryExt	Belimo Io T History Ext
Status	{disabled}
Fault Cause	
Enabled	false
Active	true
History Name	Belimo_\$parent.parent.parent.name\$_\$parel
History Config	Interval: 15 minutes, Record Type: nume...
Last Record	null
Interval	00000h 15m 00s [1ms-+inf]
Upload From	17-Feb-2021 03:18 PM CET
Last Upload	null

What can it do



No need to log the data yourself. **Access historical data** of the device for its entire lifetime. Simply get the data over the needed time span and in the resolution, you need.



How to make it work



Requirements

- At least Niagara 4.9 Framework
- A supervisor licensed installation
- Enough licensed resource points

To access to the Belimo Digital Ecosystem you will need

- Active Belimo Cloud Account – Belimo ID
- To apply for an application-specific Client ID on developer space
<https://www.belimo.com/iot/developers>

How to make it work





Comfort

Installation

Maintenance

**Small Devices,
Big Impact.**

Energy Efficiency

Safety



BELIMO®
