thinknx

Ready-made solutions for automation

ThinKnx

ABOUT US

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ThinKnx is the official brand of Pulsar Engineering srl, a leading company in the field of Home & Building Automation for more than 15 years. Thanks to the skills and experience of its staff, Pulsar Engineering has lead to the development of different devices accomplishing the first goal of the project: the creation of a powerful supervision system for houses, industrial and commercial buildings, named ThinKnx.

A strong passion for technology and innovation as well as constant research in the automation market drove ThinKnx staff to improve products in order to meet the final users' everyday needs such as comfort, power management, building security and energy saving. In addition, ThinKnx aims to integrate more and more building automation protocols, achieving a complete, reliable, easy-to-use and smart system.

Starting from the design & development to the assembly, the entire productive procedure takes place in the headquarter in Milan by highly-qualified staff performing every step with care for the details and providing the unique Italian style.

Being a member in the KNX Association and the Z-Wave Alliance, ThinKnx has reached a global view in the evolution of these worldwide protocols extending its solution to a great amount of devices.

ThinKnx currently counts on several distributors and partners all around the world, who share the same vision for innovation and offer additional value to the products.

Introducing our products and services

A complete solution

THINKNX SUPERVISION SYSTEM

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ThinKnx is the original multi-purpose supervisor for building automation. It is the perfect solution to control all the functions of the systems, integrated into your smart home or building.

These functions are handled by ThinKnx through a simple, appealing, highly customizable and multi-platform interface that allows to intimately and freely interact with the system through your iPhone, iPad, Android tablets and smartphones, and even your Windows devices.

The entire ThinKnx system, combining hardware and software, is 100% made in Italy.
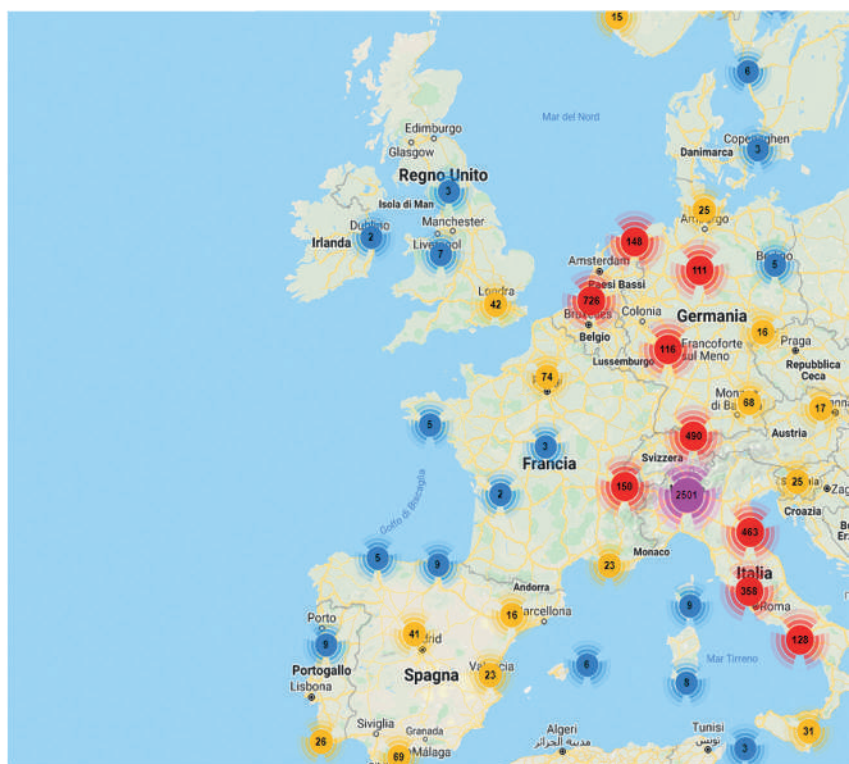
10.000+
ACTIVE INSTALLATIONS

65+
COUNTRIES
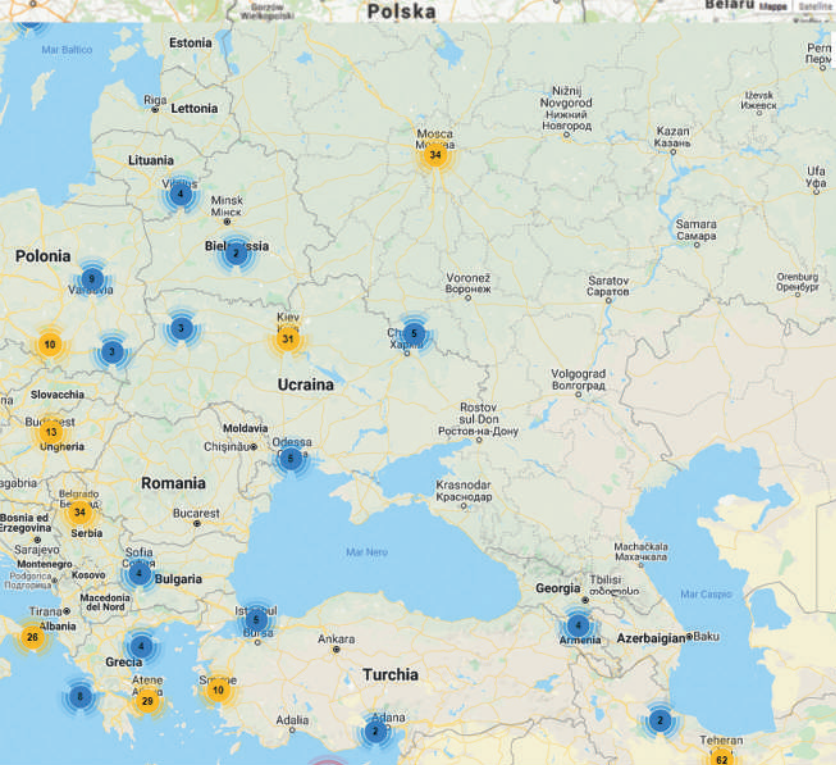
Proved reliability

ANYWHERE

Over ten thousand installations in the world proving the reliability and security of ThinKnx system.
A constant attention to the requests and suggestions of customers drives ThinKnx team to keep on working for improving products and searching for new solutions on the cutting-edge of technology, with the aim of remaining the trailblazer for supervision systems.

100.000

DAILY
CONTROL SESSIONS

15+

YEARS OF
EXPERIENCE

A real advantage

FOR OWNERS AND SYSTEM INTEGRATORS

ThinKnx system comprehends all the parts needed to transform the building automation into a real advantage for the building's owner, enhancing benefits in many areas including saving on energy costs, limiting environmental impact and improving building security and safety.

It is a complete solution that also helps system integrators. Through very simple, intuitive and versatile tools, they are guided to create outstanding user interfaces easy to deploy and mantain, to fulfill all the customers expectations. Our efficient and qualified technical support gives an additional value to ThinKnx system.

RESIDENTIAL HOUSES

Create custom interfaces to control smart houses enhancing your living and providing better comfort, security, saving and easiness.
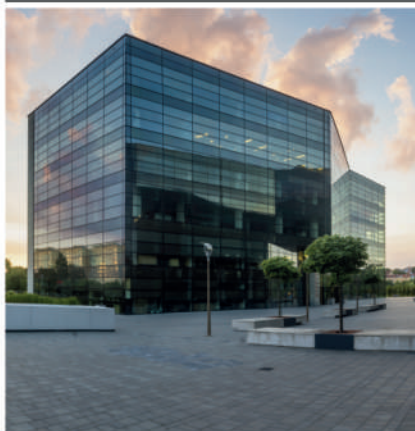
COMMERCIAL BUILDINGS

Manage smart buildings to speed up routine operations, to simplify maintenance and improve energy savings while adding value thanks to the integrated systems.

SCALABLE

ThinKnx guarantees flexibility and scalability of the installation so it can be adapted to all the customers' needs. It supports installations on simple plants with integrated standard systems and meets the needs of more complex buildings allowing a huge quantity of systems to communicate to each other.
Integration and interoperability are favoured by the easiness during the configuration activity.

SECURITY   MULTIMEDIA   CCTV   REPORTS   VoIP

thinknx

OTHER
BUSES

KNX

ZWAVE
ALLIANCE

HIGHLY CUSTOMIZABLE

Both graphics and logics can be decided during the configuration phase through an easy procedure.
All the graphics that will appear in the supervision software can be decided by the user. The supervision project can be multiuser in order to give the final user the control of different views and commands of the same plants.
Security is also guaranteed thanks to the use of restrictions and PIN codes.

We control

VOIP & INTERCOM

Integration of audio/video door stations for Windows, iPad, iPhone and Android clients
VoIP SIP server included
Simplified installation for devices of the following manufacturers:
Mobotix, 2N, Comelit, TCS, Doorbird

SECURITY & CCTV

Visualization of IP cameras with MJPEG or RTSP video flow.
Integrated control of security panels:
- Bentel: KyoUnit, Kyo320, Absoluta
- Tecnoalarm (Tecno Out Protocol)
- Paradox
- Elkron MP508TG
- Aritech Advisor Master and Advanced
- Honeywel Galaxy
- Inim
- Urmet
- SiemensSPC
- Elmo and less

BUILDING AUTOMATION

Direct connection with KNX
Z-Wave controller on board
Switching, dimming, blind control
RGB control through KNX
Reading/Sending analog values
Generic timers
Scenes management
Complex logical/mathematical functions
SMS gateway
Management of technical alarms with push notifications, emails, and automatic page changing.
Voice Control
Smart irrigation system

them all!

HOME ENTERTAINMENT

Integrated control of audio/video devices and systems:
- Audiofy
- Tutondo
- Audio/Video multiroom matrix AMX, Autopatch, Kramer, Atlona, Gefen
- Amplifers Denon, Onkyo, Cambridge Audio
- Serial gateway
- IR Trans and Global Cache for infrared control
- Internet of Things gateway
- Sonos
- Ethernet gateway

HVAC

Heating and cooling management with weekly timer
Built-in regulator feature
Temperature or modality-based schedule


LOADS CONTROL & REPORTS

Intelligent loads control
Smart metering with P1 interface
Differential or impulse counter
Monitoring of analog values and sending of reports via email as lists or as interactive charts

Discover ThinKnx servers

ThinKnx servers are the heart of the whole solution. All the devices are designed and optimized to manage the entire automation system, and are built for continuous operation with fanless processing. They have enough horsepower even for the most complex multiroom buildings. Linux operating system and industrial solid state memories guarantee enhanced system reliability. Further appealing characteristics are the direct KNX connection driven by proprietary stack, a very low power consumption and plenty of parts to integrate third-party devices.

ThinKnx servers can be divided into Pro Line, a professional range of devices able to interact with complex systems, and Trend Line, with small dimensions and limited functionalities for simpler plants.

MICRO

COMPACT

RACK

ENVISION

PRO LINE

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TREND LINE

KING (K)

QUICK (Q)
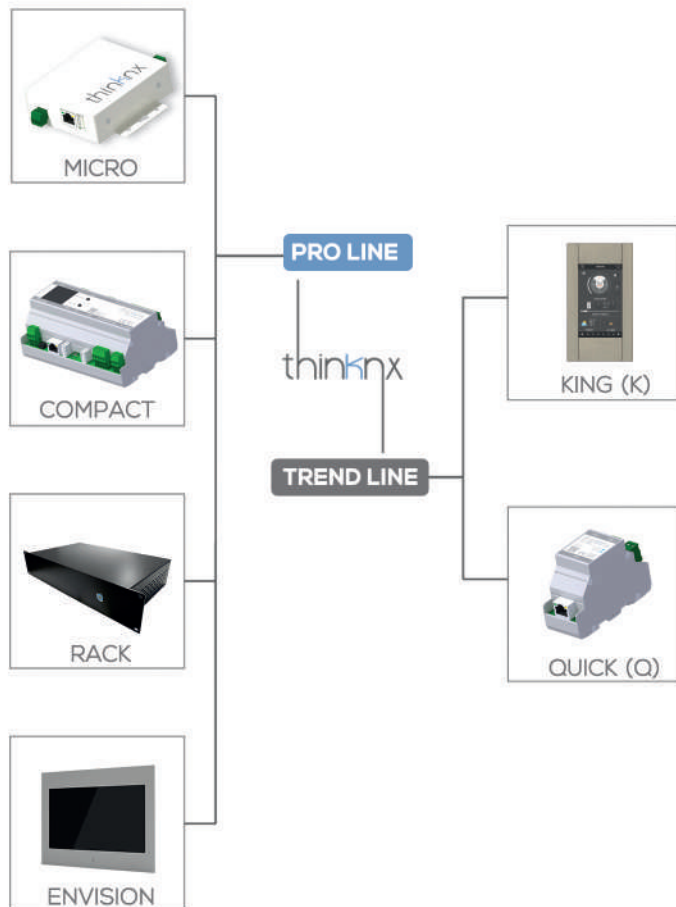
Micro

Standard automation
Unlimited KNX groups
Unlimited clients
IR Transmitter
Reports until 20MB
Light web page
Voice control

Power: 12-24 VDC - 1A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
1x USB port
1x RS485 port

Compact

Standard automation
Unlimited KNX groups
Unlimited clients
Multimedia control
Reports until 20MB
Light web page
Voice control

Power: 12-24 VDC - 1A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
4x in + 4x output 4A@220Vac
2x USB ports
1x RS485 + 1x RS232

Rack

Standard automation
Unlimited KNX groups
Unlimited clients
Multimedia control
VoIP
Modbus
Reports until 20MB
Light web page
Voice control

1x EIB/KNX port
KNXnet/IP interface/router
2x RS232 or RS485
1x standard RS232
4x USB ports
2x Ethernet ports

Envision touch controller

ThinKnx Envision is the elegant and smart all-in-one touch server, which allows you to control your home or building using a capacitive high-resolution touch screen with a low power consumption.

Available as 7", 10" or 11" screen, either server or client, it is characterized by a modern design and high-quality materials that make it the ultimate solution to suit any customers' request.

Internal loudspeaker, microphone and the built-in VoIP PBX permit to use this device as intercom client allowing it to communicate with any VoIP (SIP) doorcom units and with the major IP intercoms supported.

Temperature, humidity and ambient luminosity sensors allow the use of Envision as a thermostat, with no additional costs.

Powered by Linux OS and directly connected to KNX TP bus, Envision can establish bidirectional interaction with external devices, providing more power and flexibility to the building. Integrated voice control functionality permits to manage the entire automation system through easy vocal commands.
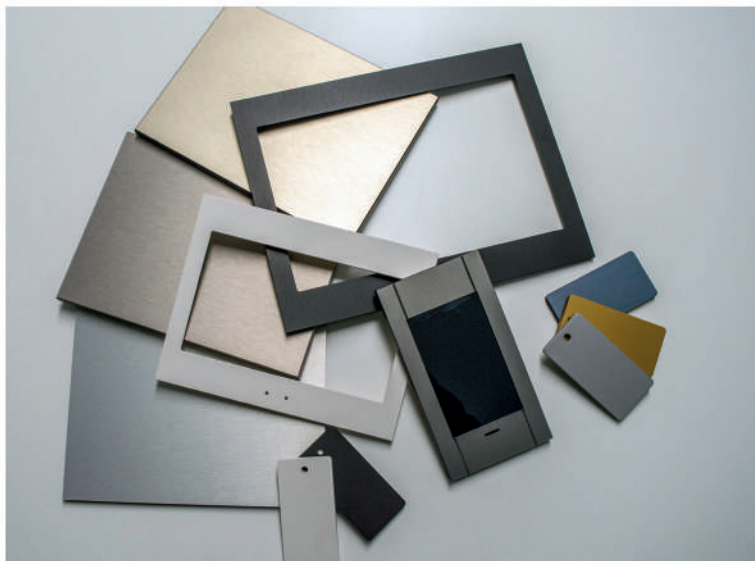
Envision frames

Envision Touch panels are combined with a complete range of stylish frames to better blend with the colours and feelings of the ambience. Tailor-made by Italian artisans with high care for the details, frames are available in several colours both in Fenix NTM and Fenix NTA with prestigious metallic finishing. Both external surfaces are very elegant and pleasant to the touch and give the Envision panel an extraordinary added value.

Fenix NTM:

Black   White

Fenix NTA:

Steel Hamilton   Silver Dukat   Gold Cortez

Customization of material and colour is possible upon request.

Envision 7

Standard automation
Unlimited KNX groups
Unlimited clients
IR Transmitter
Reports until 20MB
Light web page
Voice Control

Power: 12-24 VDC - 1.5A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
7" capacitive touch screen
158x93mm visible area
1024x600 resolution
Linux O.S.

Envision 10

Standard automation
Unlimited KNX groups
Unlimited clients
IR Transmitter
Reports until 20MB
Light web page
Voice Control

Power: 12-24 VDC - 1.5A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
10" capacitive touch screen
217x136mm visible area
1280x800 resolution
Linux O.S.

Envision 11

Standard automation
Unlimited KNX groups
Unlimited clients
IR Transmitter
Reports until 20MB
Light web page
Voice Control

Power: 12-24 VDC - 1.5A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
11.6" capacitive touch screen
257x145mm visible area
1920x1080 FullHD resolution
Linux O.S.

Both server and client versions available

	TrendLine	Micro MicroDin	Compact CompactDin	Rack	Envision 7"/10"/11"
UNLIMITED KNX OBJECTS	●	●	●	●	●
KNXNET/IP INTERFACE/ROUTER	●	●	●	●	●
UNLIMITED CLIENTS	●	●	●	●	●
ETHERNET GATEWAY	—	●	●	●	●
IR TRANSMITTER	—	●	●	●	●
VOICE CONTROL	●	●	●	●	●
Z-WAVE TRANSCEIVER	—	○	○	○	○
SECURITY	—	—	○	○	○
DOORCOM AND PBX	—	○	○	●	○
AUTOMATION	—	—	○	●	○
LUTRON	—	—	○	○	○
PHILIPS HUE	—	○	○	○	○
BTICINO MYHOME	—	○	○	○	○
SONOS	—	○	●	●	○
AUDIO/VIDEO	—	—	●	●	○
EXTENDED REPORT	—	○	○	○	○
ACCESS CONTROL up to 2 gates	—	●	●	●	●
ACCESS CONTROL more than 2 gates	—	○	○	○	○

● included feature   ○ optional feature   — feature not available

Discover ThinKnx Trend Line

Trend Line is the latest addition to the ThinKnx family, consisting of two new devices the K (King) and Q (Quick).

It is a perfect entry level solution with the most needed functionalities and a simplified configuration, fully customizable by the end user.

They are stand-alone servers that permit the control of the KNX plant through mobile apps, making them the ideal solution for different scenarios such as residential buildings or hotels.
In addition, the K can be integrated inside a plant where a Pro server has been installed, allowing the end-user to operate the keypad as a client device.

King (K)

Capacitive 4.3" touch screen
Resolution 480x720
Standard automation
Unlimited KNX groups
Unlimited clients
Dedicated app
Widgets list view
Camera monitoring
Voice control

Power: 12-24 VDC - 1A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port
1x USB port

Quick (Q)

Standard automation
Unlimited KNX groups
Unlimited clients
Dedicated app
Widgets list view
Camera monitoring
Voice control

Power: 12-18 VDC - 1A Max
1x EIB/KNX port
KNXnet/IP interface/router
1x network port

ThinKnx UP Configurator

ThinKnx UP Configurator is the tool for the creation and development of the supervision project. It allows to create all the connections needed between the graphic interface and the actual devices that are part of the system. With simple steps and intuitive parameters, graphical interfaces can be compiled with an high customization and used with all clients and all devices.

Just as easily, the user can create logics and configure system elements in order to achieve integration between all the devices. Finally, the tool allows to load the project on client devices and servers with distinguished exports according to the specific user.

ThinKnx UP Clients

ThinKnx UP software suite comprehends a wide range of native applications to cover practically any mobile platform and operating system. Downloading the proper app, it is possible to take control of the system from iPad, iPhone, Android tablets and smartphones, Windows touch screen and PC with the same ease of use and efficiency.
Native applications, embedding all the graphics inside the mobile device, grant also the best possible performance during remote Wi-Fi or 3G connection, thus ensuring an uncomparable user experience.
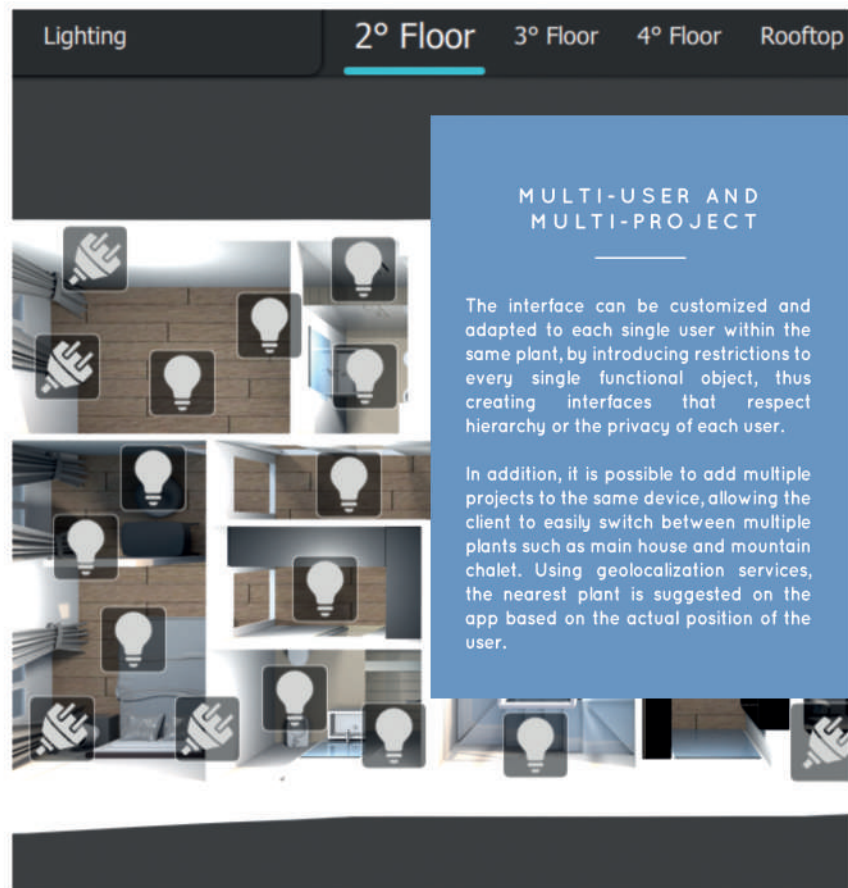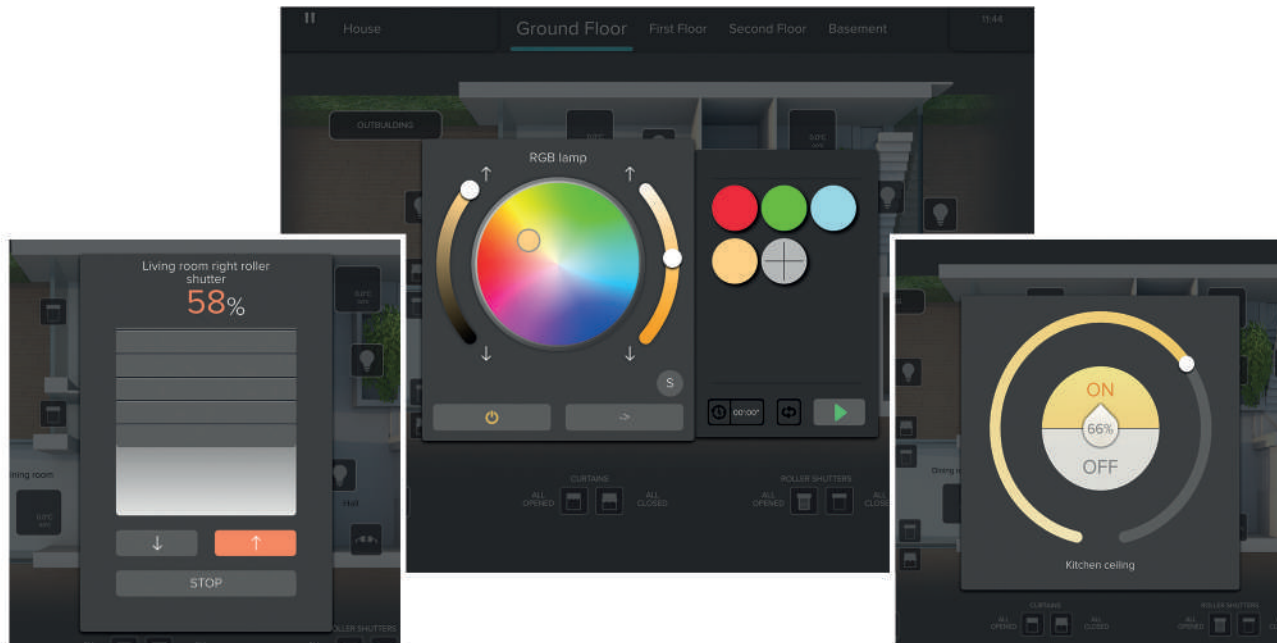
Customizable interface

EASY AND INTUITIVE

————

ThinKnx graphical user interface is completely customizable following the needs of the final user. A multilevel structure and the retractable main menu allow a pleasant navigation through the various functions by simply scrolling them. Each function contains an unlimited number of pages, with the possibility to totally edit each page and element inside, like adding a personalized background and freely position the objects (lights, motorization, thermostats, etc.).

The interface automatically complies with the resolution and orientation of the device in use, boosting readability and speeding up operations.

ThinKnx supports multi-languages with particular focus on right-to-left languages (Arabic, Persian, Hebrew) and Chinese.

Lighting   2° Floor   3° Floor   4° Floor   Rooftop

MULTI-USER AND MULTI-PROJECT

————

The interface can be customized and adapted to each single user within the same plant, by introducing restrictions to every single functional object, thus creating interfaces that respect hierarchy or the privacy of each user.

In addition, it is possible to add multiple projects to the same device, allowing the client to easily switch between multiple plants such as main house and mountain chalet. Using geolocalization services, the nearest plant is suggested on the app based on the actual position of the user.

Pop-ups for complex operations

The system automatically prompts specifically designed dialogs for the different objects that require multiple user inputs, such as dimmers, RGB lights, motorizations, chronothermostats, timers etc.
A clear way to keep the pages organized and user-friendly.

Scenes recording, launching ...

Record your daily routine! With ThinKnx scenery object, it is possible to record multiple actions and perform them back with a simple button in the UI or a normal on-wall push button. Sceneries can combine commands from any device of the installed system, making them the most important bricks to build the automation system, and adapt it to the needs of the end-user's daily life. Recorded sceneries can always be edited and easily updated from the application with simple operations.

...and scheduling

Further benefits come from the possibility to automatically launch the recorded sceneries from a weekly time schedule or an external action or trigger event. For instance, it is possible to automate the closure of all the shutters and the arming of the alarm system at a specific time in the evening if someone is in the house. Sceneries can also be interconnected and actions can be separated with pauses.

Heating and cooling regulation...

Intelligent climate control is crucial for a better life quality.

ThinKnx allows the user to operate and regulate heating, ventilation and air-conditioning in a seamless intuitive way, in order to provide the desired thermal comfort and indoor air quality efficiently.

ThinKnx powered smarthomes will be able to automatically react to the changes of indoor or outdoor conditions: shades will go up or down following sun times, heating or cooling will stop if a window is open and start to welcome you back home with the perfect temperature.

...and weekly schedule

In addition to controlling the temperature from inside or outside the house, ThinKnx allows to schedule the desired thermal comfort for each room during the entire week, to grant the right temperature at the right time.
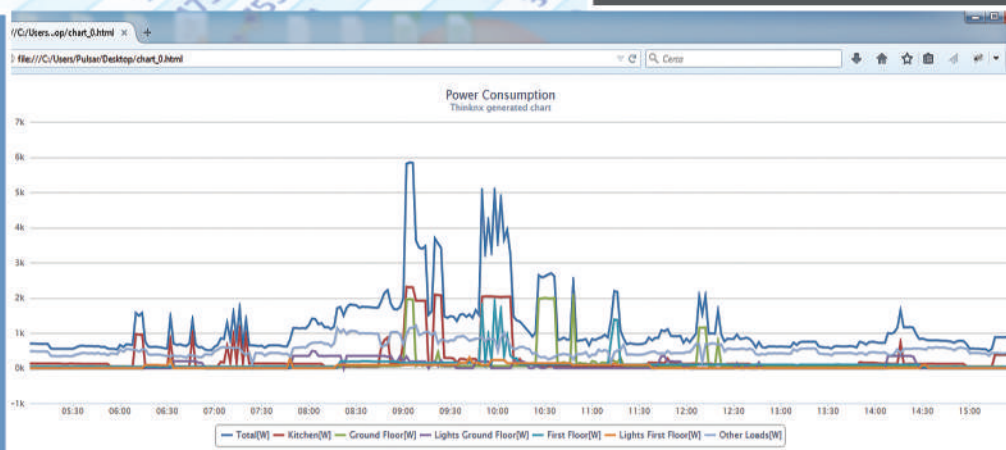
The clear pop-ups allows to set temperatures or heating modality in winter or summer. They are specifically designed to show the running settings in a comprehensive way and notify the user in case the system is operating unexpectedly.

The user can check the summary view with all the modalities set for each day of the week, in order to have a global idea of the modes scheduled.

REPORTS

ThinKnx not only regulates building functions, but also collects data to help owners to further increase the efficiency and comfort of their buildings.

Any data, like room temperatures, humidity levels, power consumptions, etc. can be stored locally in the server or in the cloud with a desired granularity and buffered for a predetermined duration. The same data can be e-mailed in a tabular form or as interactive auto-generated charts.

CHARTS

Data collected by the server can be consulted in realtime directly from the user interface through interactive and responsive charts. The multitude of plotting options and the possibility to include more data sets in the same chart, allows to deeply analyze the behaviour of the building and to find correlations between the habits of the inhabitants and the results in terms of energy consumption and efficiency. It can also help to identify and diagnose system problems before it's too late.

SMART METERING

ThinKnx provides all the tools needed to analyze, compare and optimize energy flows and consumptions. In addition to statistical tools like charts and reports, it is possible to combine the usage of multiple energy sources easily and efficiently. The system can automatically use electricity from solar panels when it is available or schedule energy-consuming operations according to the most convenient supplier tariffs.

Warning! The temperature of the boiler is over 60°C!

OK

NOTIFICATIONS

Although remote control allows to always be aware of what is happening at home, ThinKnx will also send alarm messages when an important event is occurring. In case of alarm, it is possible to receive push notifications, SMS or even emails to react as fast as possible to the technical problem, camera detection, intrusion or door call.

DOOR COMMUNICATION

ThinKnx application can also work as an intercom client, allowing the user to answer the door call from anywhere.

It is designed to support VoIP-based door communication and to permit the complete management of gates and entrances. ThinKnx also embeds a VoIP server that facilitates system configuration and grants no missed calls, even when the application is running in the background. Moreover, door camera can also be used to trigger events, or sceneries like any other system camera.

IP CAMERAS AND CCTV

Thanks to the camera object, ThinKnx application gives the ability to monitor the house in real time. In addition, it is possible to create pages with multiple views and interactive objects, and be able to check whether an alarm is true or false.

Analog cameras are also supported using IP-videoserver or integrated digital video recorder.
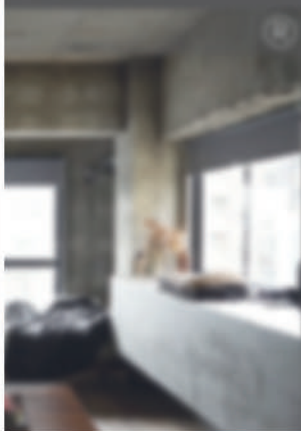
ALARM DEVICES

Thanks to the integration of numerous alarm systems, it is possible to perform the most common operations from the supervision software like viewing the status of sensors, or arming a partitiion also remotely. Furthermore, alarm components can be used inside the integrated system to trigger actions,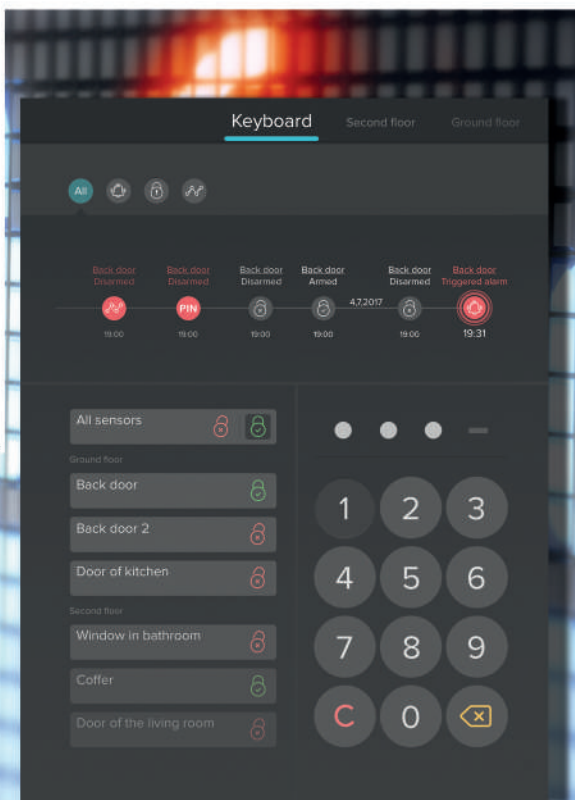 from the simplest like turning on a light on movement, to the most complicated ones like performing particular sceneries when alarm is activated by a specific user.

Keyboard   Second floor   Ground floor

All

Back door Disarmed	Back door Disarmed	Back door Disarmed	Back door Armed	Back door Disarmed	Back door Triggered alarm
PIN			4,7,2017		
19:00	19:00	19:00	19:00	19:00	19:31

All sensors

Ground floor
Back door
Back door 2
Door of kitchen

Second floor
Window in bathroom
Coffer
Door of the living room

1 2 3
4 5 6
7 8 9
C 0

PRESENCE SIMULATION

It is less likely for an intruder to enter a house when they detect presence inside. On holidays, you can give the impression that someone is living in the house using the presence simulator. When activated, it will perform a specific set of actions in a pseudo-random order and time, like turning some lights on, opening and closing the curtains and/or playing music.

Use your voice as your remote control

Now you can simply use your voice to control your whole house! Whether it is through Amazon Echo or Apple Home-kit, the user is able to manage everything integrated inside ThinKnx system such as lights, temperature, shutters, security, scenes, multimedia etc. All the functionalities are also managed by Android or iOS devices for a complete remote control. The voice commands are translated into low level actions independently from the protocol and technology (KNX, Z-Wave, Modbus etc).

Internet of Things

In addition to the already embedded protocols, ThinKnx servers offer the chance to connect and control almost any device thanks to their wide set of configurable link ports. For instance, custom strings can be sent to devices through ethernet to perform desired operations. Generic http requests can also be associated to particular events, or data transfers on serial ports can drive a scenery or other actions.

MQTT and other IoT specific protocols are available to communicate with the ever growing number of smart devices.

Finally, the Integration Kit is a powerful tool that can be used to communicate with third-party systems.

Two-way communication can also be established with other ThinKnx servers or a wide range of services available on IFTTT.

IR TRANSMITTERS

Simple devices with no dedicated port to be controlled can also be integrated into the ThinKnx system. In fact, by means of network infrared transmitter, even the most simple CD player or satellite receiver can be controlled from the graphical interface and used in complex multiroom distributions. Furthermore, they can be integrated into sceneries and used in conjunction with other elements of the house as normal on-wall push buttons.

MULTIMEDIA AND A/V

Audio/video system in the entire house can be centralized, controlled and enjoyed from any room. Through ThinKnx application, it is possible to select the desired source and to control it without caring about its installation or location, for a relaxing daily experience.

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SONOS

ThinKnx integrates every feature of the Sonos system, from single track to playlist reproduction. Even device grouping can be decided based on other events.

Sonos can also be controlled from KNX through the server. On-wall push buttons can be used to turn music on or off, play the radio, skip tracks, change music volume and so on, without using a tablet or a mobile phone.
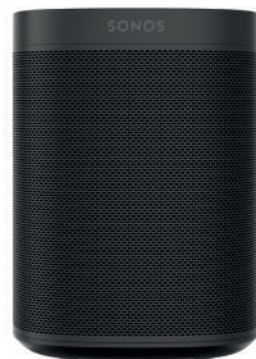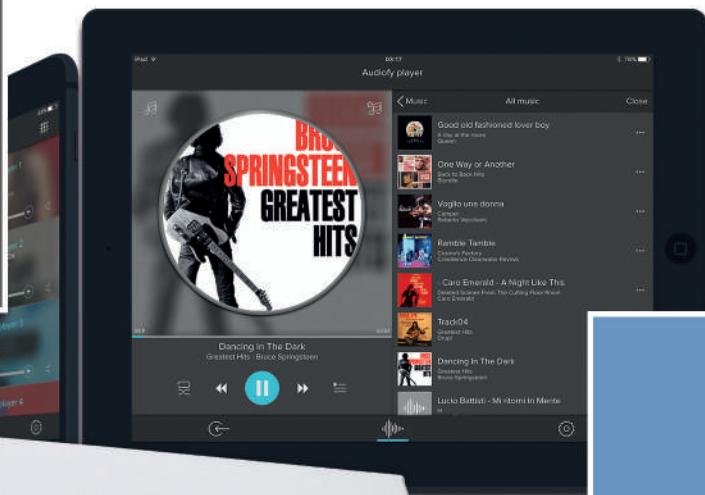
AUDIOFY

Audiofy is the simple yet powerful integrated multi-room professional audio system created by ThinKnx.

Only one device combines audio matrix routing, power amplifiers for each output and up to four independent network players. A native KNX TP port allows to send commands to the music system directly from other KNX devices and receive feedbacks.

ThinKnx Cloud

An advanced cloud service is available for free to all the ThinKnx users. It simplifies daily operations and connections, as well as the maintenance and commissioning of the projects.

The services offered by ThinKnx Cloud are:

Remote Control: Automatic connection of the clients to the server without any port forwarding or router configuration.

Remote Update: Seamless distribution of projects from configurator to server and all the clients wherever they are.

Data Storage: Collection of interesting user data from the installations and storage into a safe DB.

Dynamic DNS: Free dynamic DNS service.

Additional functions are available such as free push notification service, connection with third-party services like Amazon Alexa, and ThinKnx Portal.

Remote Control
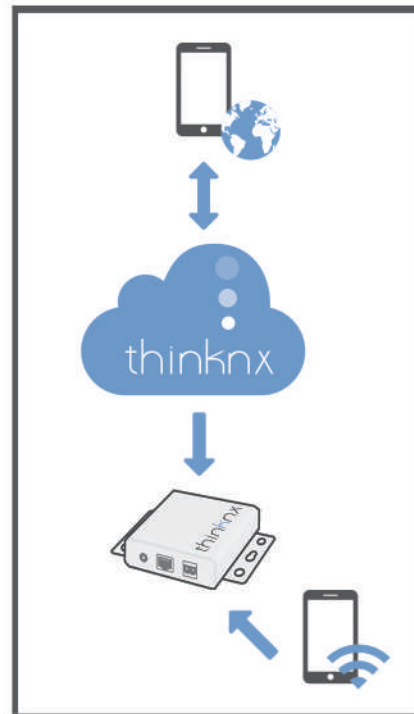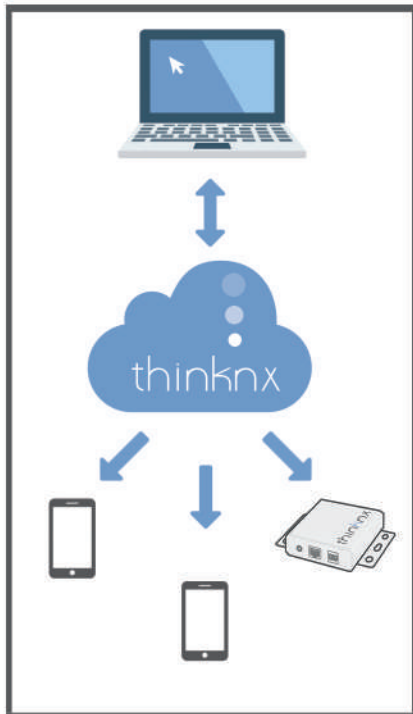
Remote Update	Data Storage	Dynamic DNS

me.my.thinknx.net

public IP: 2.2.2.2
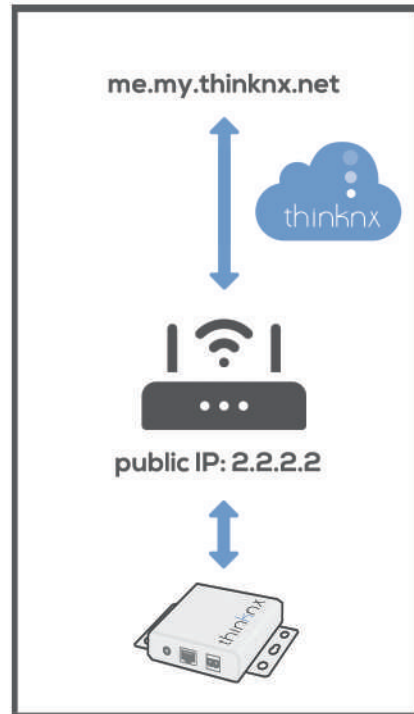
ThinKnx Portal

Being a cloud service dedicated to system integrators as well as users, ThinKnx Portal is the perfect solution to monitor and control multiple installations such as multi-branch retail stores or companies, clusters of villas or chain hotels. It enables all the installed servers to be virtually connected regardless of their physical location, and controlled from a centralised ThinKnx user interface.

Each user has access to a customizable web page that groups data into charts and reports from all the enabled installations, as well as data tables that can be filtered according to the desired time frame. Individual values can also be monitored and even modified should the need arise.

Server Monitoring

ThinKnx Portal is a very powerful tool for installers and system integrators. The servers list in particular allows them to check the state of each connected device, get all the information such as the activated licences, view logs and interact with KNX, and even upgrade or reboot the device in case of failure. The users can also locate all the online servers on the world map, giving them an overview on their installations.

Background services

THE REAL POWER OF THINKNX

ThinKnx server is able to perform a considerable quantity of additional background services, such as complex mathematical expressions (averages, boiler power modulation, loads consumption sum, ventilation control, etc.), logical operations, sceneries, data storage, load control and energy saving, triggering events through sun times, and scheduling.

Another interesting service offered by the server is the ability to operate as a KNX IP interface/router while maintaining its original purpose as visualization server. The ThinKnx server can also communicate with other KNXNet/IP interfaces instead of using its own embedded bus connection to communicate with the KNX bus.

UPLOAD

Configuration upload

From this page is possible to upload the server configuration file generated by Thinkx Configuration.

[Select file] [Select File]

[Upload]

Instructions:
- Save configuration you are working on Thinknx configuration
- Generate export file with the "Export for Server" command
- Save exported file in a reachable path
- Click on "Select File" button in this page
- Click on "Upload" button in this page
- Wait for confirmation message and software restart

For any necessary technical support please refer to manual pages or contact technical support.

LICENSE

Licenses & codes

From these pages you can manage license codes and enabled clients.

License codes:
Any license code enables functionality of Thinknx server and maximum number of allowed clients.

Inserted codes:

Codes has to be required to Thinknx. Required has to contain server serial number and server id.

[Insert license code]

[Add License Code]

Clients codes:
A unique code is associated to any running client (ipad, Touch Screen, PC). This code must be inserted into the list of server known codes and has to be enabled. Server ensure connection just to enabled clients.

MONITOR

Knx bus monitor

From this page is possible to interact with KNX/EIB bus. Right menu contains all the options needed to send messages over the bus.

Bus messages:

TIME	SENDER	DESTINATION	DATA
15:49:33.521	1/1/5	3/0/1	21.4
15:50:33.545	1/1/5	3/0/1	21.4
15:51:33.575	1/1/5	3/0/1	21.4
15:52:33.649	1/1/5	3/0/1	21.4
15:53:33.590	1/1/5	3/0/1	21.4

[Clear messages from table]

SEND TELEGRAM

Send messages on bus

KNX group	../.
Lenght	1 Bit
Data type	1 bit
Option	
Value	0

[Send]
[Read Group]

MAINTENANCE

Soft restart
Perform a server software restart

Full restart
Perform a full reboot of the server

Shutdown
Perform a clean shutdown of the server

SERVER INFO

Licensed to: owner
Serial number:
Server ID: d3118fea-14ce-40f6-91cb-ef07d43bc3fe
Software version: 1.1.8.7
Max allowed clients: 999

Server web interface

FOR SERVER MANAGEMENT

ThinKnx server also integrates an internal web server that allows to perform remote maintenance of the system.

The users can control the server status, update its firmware or reboot it, all from the web interface. They can also enable or disable features through the licenses management page or authenticate client devices, granting a secure connection.

A real-time KNX group monitor is available to control KNX traffic and to read/write a particular group. The server also displays log messages regarding operations carried out on the plant in order to facilitate researches and troubleshooting. Logs can be filtered by type and be exported to a csv file.

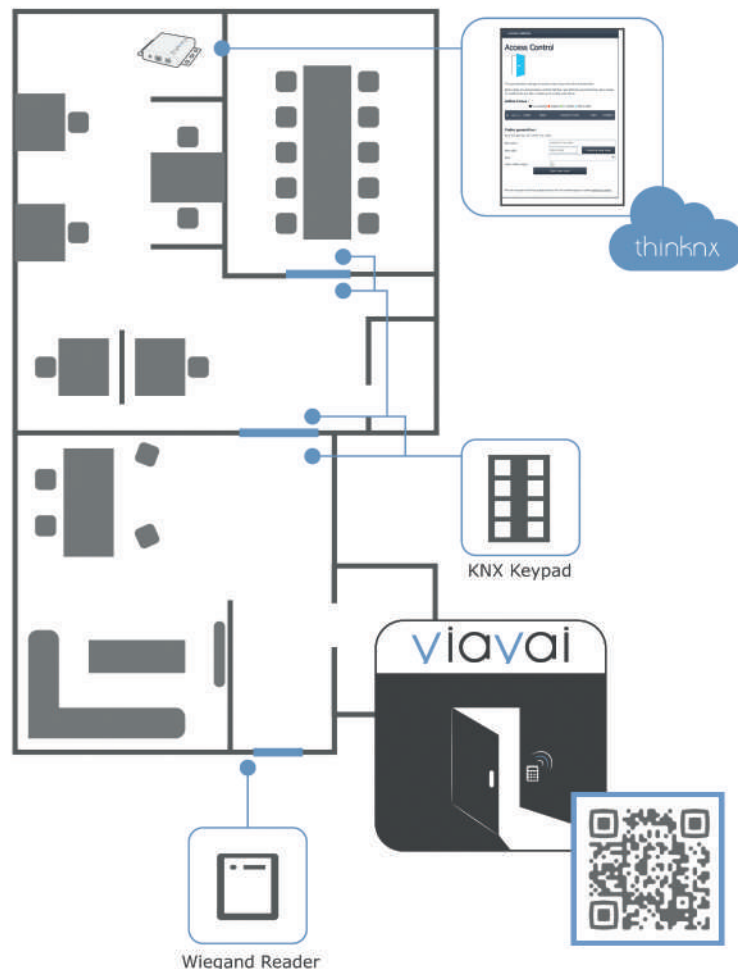# VIAVAI

KNX-BASED ACCESS CONTROL

ViaVai Access Control is a new upgrade that can be applied to any ThinKnx server to enhance the level of automation and security of a plant and provide an easy management of access credentials.

Thanks to the KNX TP port of the server, any standard KNX keypad can be used by the user to enter the access code to a certain area, and even control a KNX lock or switch outputs on the installed actuators.

Communication with Wiegand technology is also possible through the ThinKnx-Wiegand adapter, allowing the integration with suitable RFID or biometric readers.

ViaVai can be adapted to sectors where long-term expirations are required such as service and industry sectors, but also applies to the hospitality sector where credentials are usually short-term, and remote management is required.

The configuration of the access control topology with all its readers, areas, and roles is done from the one and only ThinKnx UP Configurator, while the management of the users, areas and schedules is done from the manager's web page.

KNX Keypad

Wiegand Reader

ViaVai applied to hospitality

————

1- The guest books his stay in the hotel and is automatically registered into the system with a generated code.This code, in a form of QR code, is directly sent to the customer together with booking confirmation email. The user can then download the app and explore it.

2- Guest arrives to the hotel to check-in. The code becomes fully operational, allowing him to control his room and all doors in common area.

3- Using the same app, the guest can also control the lights, shutters, and HVAC in his room. Through integration with the Guest Management System, it is also possible to convey billing information to the app.

4- At check-out, the guest code is automatically deactivated and the app will stop being lively connected to the hotel.

5- The app can still be used by the hotel to convey information to the user regarding events, special promotions, news, etc

6- Should the guest decide to book again with the same hotel, previous settings configured by the guest can be proposed such as preferred temperature setpoint, music, wake up alarm, etc.
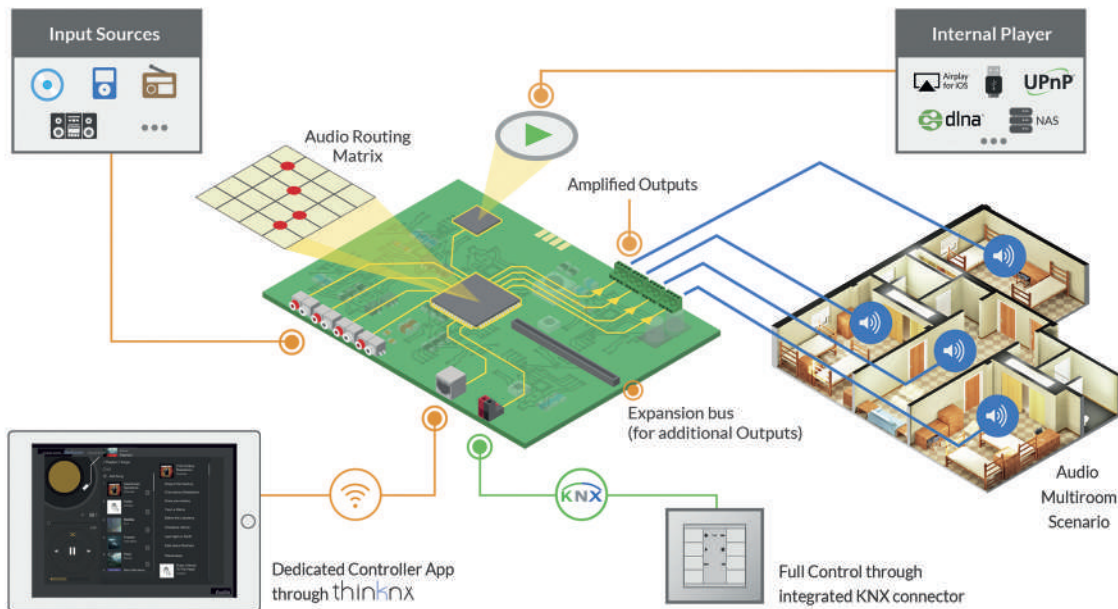
Audiofy

KNX native, professional multi-room audio system

ThinKnx Audiofy: the easiest way to enjoy your music...

Audiofy is the simple yet powerful integrated multi-room professional audio system created by ThinKnx. Only one device combines audio matrix routing, power amplifiers for each output and up to four independent network players. The system permits to spread audio contents from external analog sources or from internal players to up to 32 rooms with superior pure sound quality. Moreover, a complete set of applications grants a total control over your music listening experience coming from USB stick, network radios or from the most common streaming services like Spotify.

Input Sources

Internal Player

Audio Routing Matrix

Amplified Outputs

Expansion bus (for additional Outputs)

Audio Multiroom Scenario

Dedicated Controller App through thinknx

Full Control through integrated KNX connector

...fully integrated in the automation system

Thanks to the many protocols supported, Audiofy can be perfectly integrated inside the automation system. The native KNX TP port allows to use Audiofy not only as a multiroom audio solution that sends commands and receives feedbacks from other KNX devices, but also like a complete stand-alone server for the management of lights, rollers, thermostat, HVAC without any additional device.

The Quality numbers

ANALOG INPUTS:
High impedance, single ended inputs with RCA terminals. Selectable gain (0 to 20dB) for each single input.

INTERNAL STREAMER:
Streams and plays all the most diffused digital audio format. Each player is an AirPlay endpoint and Upnp renderer. It can play from DLNA and Upnp Media server, network sharings and USB pluggable storage.
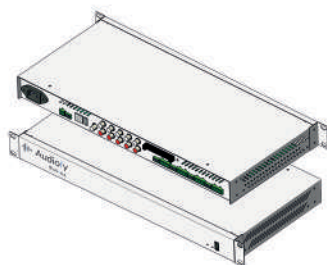
SOUND PROCESSOR:
Each input can be routed to 1 or more outputs. 3-Band equalizer, +15dB/-79dB volume control and L/R balance adjust for each output.

OUTPUTS:
Class D, high efficiency, 2x50 W continuous on 4Ohm, fault protected, stereo outputs. Additional preamplified outputs for active speakers or external amplifiers.
THD+N = 0.1% @ 25W - SNR = 102dB

Audiofy P1

Permits to spread music coming from the 5 analog inputs or from the single internal player to 4 amplified outputs (expandable to 32)

Nr. 1 internal network player
Nr. 5 single ended inputs
Nr. 4 amplified stereo out
Nr. 1 ethernet port
Nr. 1 EIB/KNX TP port
Nr. 1 USB port
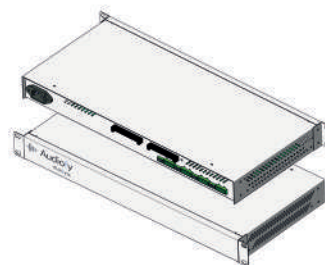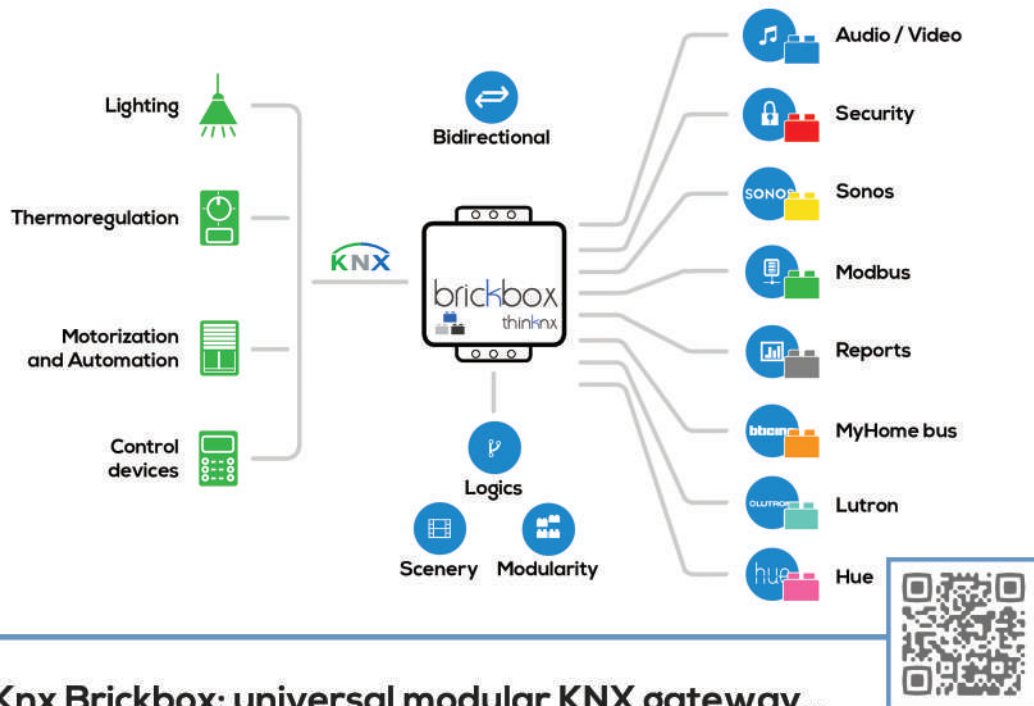Power 230VAC 200W Max

Optionally with server inside

Audiofy P4

Permits to spread music coming from the 2 analog inputs or from the 4 internal player to 4 amplified outputs (expandable to 32)

Nr. 4 internal network player
Nr. 2 single ended inputs
Nr. 4 amplified stereo out
Nr. 1 ethernet port
Nr. 1 EIB/KNX TP port
Nr. 1 USB port
Power 230VAC 200W Max

Optionally with server inside

Audiofy E4

Expansion module to add 4 additional outputs to existing P1 or P4 module

Nr. 4 amplified stereo out (50W per channel on 4 Ohm speakers)
Power 230VAC 200W Max

Lighting	Audio / Video
Thermoregulation	Security
Motorization and Automation	Sonos
Control devices	Modbus
Bidirectional	Reports
Logics	MyHome bus
Scenery	Modularity	Lutron
	Hue

ThinKnx Brickbox: universal modular KNX gateway...

Brickbox is the ThinKnx product line that allows the connection to KNX plant of systems that don't natively support this protocol. Taking advantage of all the functions already integrated in ThinKnx products, through Brickbox it is possible to control, in a bidirectional and fully configurable way, audio sources like Sonos, multimedia systems, alarm devices and systems based on other buses like Modbus, SCS (MyHome), etc.
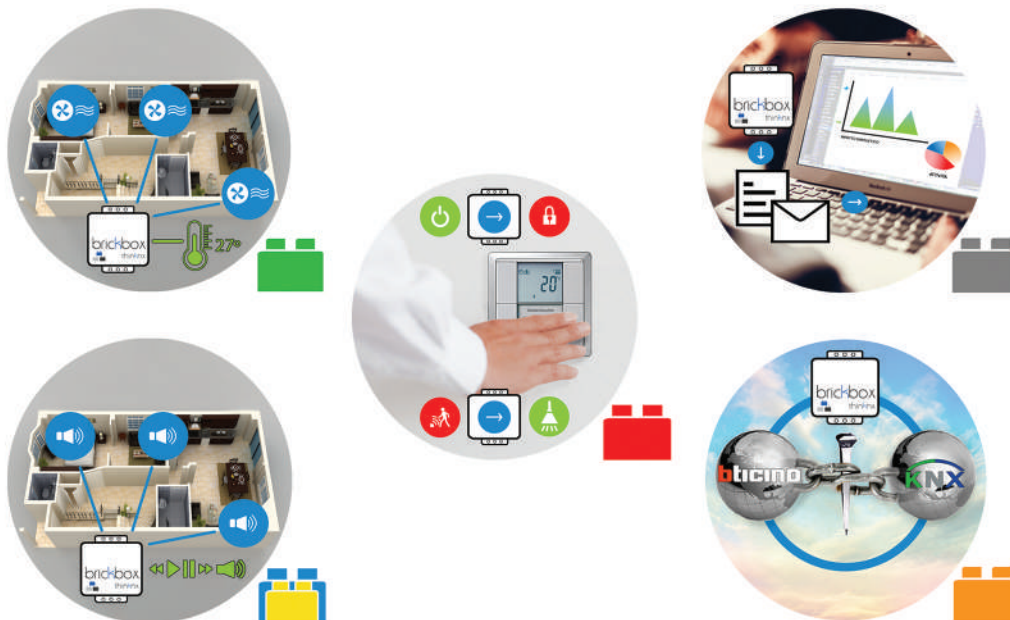
...and much more

It is also possible to use Brickbox to collect data (reporting, KNX logger) or to check in realtime the service continuity of the plant (ping of KNX devices or network).
The internal services, available on ThinKnx servers can be found on Brickbox, such as preprogrammable sceneries, generic gateways, alert messaging, logical functions, etc.

Philips Hue

This brick allows to control the Philips Hue lights from KNX bus.

In the ThinKnx system different rules can be created to control Hue elements (lights or groups) from KNX and to receive feedbacks from them.

It is possible to simulate RGB elements or white lamps with presettable light temperature.

Created elements can be integrated into scenes and controlled by KNX devices.

MyHome BTicino

This brick allows the bidirectional connection of MyHome BTicino plants to KNX plants.

Through easy-to-fill tables it is possible to set matching among the messages coming from the two worlds.

The device makes possible the control of KNX devices from MyHome buttons and vice versa, allowing the creation of unique supervisions for the complete integration of the two systems.

Modbus

This brick allows the bidirectional connection of Modbus bus (RTU or TCP) to KNX bus. A RS232 and a RS485 ports are available to connect directly to Modbus.

It supports all the standard communication functions and all the datapoint types. It also implements advanced modes of data grouping to optimize reading on Modbus. There are no limitations in the number of usable datapoints.

Lutron

This brick allows the bidirectional connection of Lutron plants to KNX plants.

The integration allows to associate KNX groups to Lutron lights, making the devices in the Lutron plant controllable from KNX buttons or supervision.

The Brickbox makes possible also the control of KNX devices from Lutron buttons, allowing the creation of unique supervisions for the complete integration of the two systems.

Audio Video

This brick allows to control all the audio video devices already integrated in ThinKnx system from KNX bus.
Multiroom systems, A/V matrices, audio amplifiers, infrared transmitters and so on will send their status to KNX and can be commanded from there. Connection to the devices can be made through a RS232 port or RS485 port.

Sonos

This brick allows to control the popular Sonos multimedial system in a bidirectional way from KNX.
In addition to common use controls, the user can set repeat mode, to play defined tracks (both locals or coming from network services or line-in port) or playlists.
Another important feature consists of the possibility to define grouping among the players and to easily recall them with KNX groups.
Feedbacks information (play, stop, current volume, track, artist, etc.) are available on KNX.
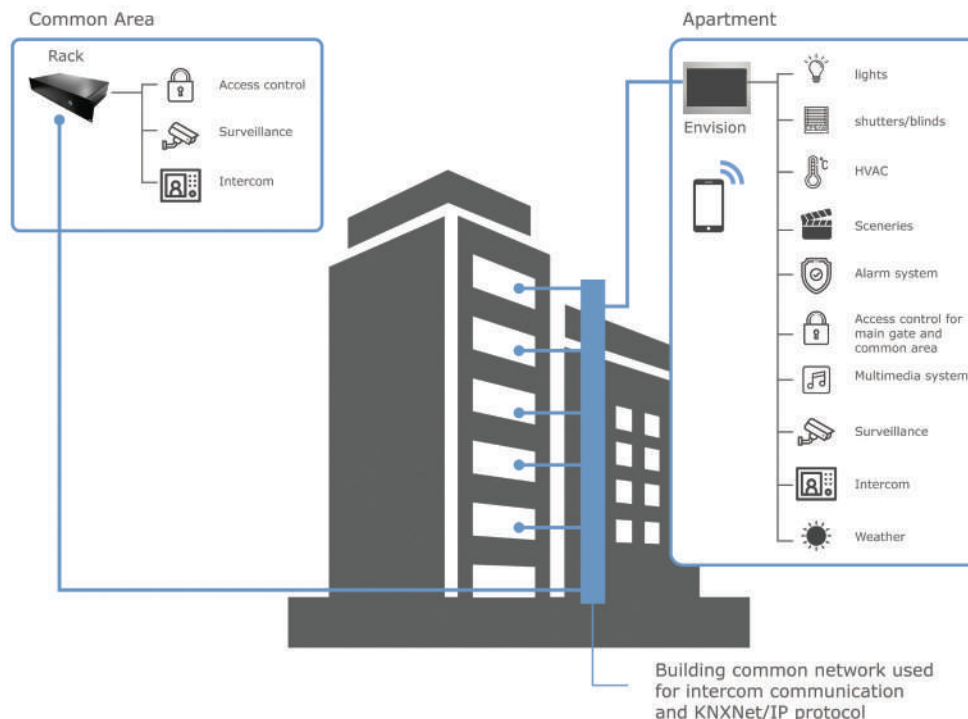
Security

This brick allows the bidirectional control from KNX of all the alarm devices integrated in ThinKnx system. All the sensors feedbacks are available on KNX. In addition, telegrams can be sent in case of emergency or other programmable events.
It is also possible to control arming and disarming of the alarm device through 14 byte strings. Connections to the security panels can be made through a RS232 port or RS485 port.

Report and integrity

This brick allows to collect data from KNX plants (both locally and on the cloud), to generate reports and to continuously store KNX telegrams (logger modality). All the data can be sent via e-mail to multiple recipients and organized in tables or charts. It allows also to set periodic tests about the correct functioning of KNX devices in the plant (through their phisical address) or of devices in the network (ping or test connection through TCP/UDP ports). In case of malfunctioning alarms via SMS or e-mail can be sent.

Common Area

Rack

- Access control
- Surveillance
- Intercom

Apartment

Envision

- lights
- shutters/blinds
- HVAC
- Sceneries
- Alarm system
- Access control for main gate and common area
- Multimedia system
- Surveillance
- Intercom
- Weather

Building common network used for intercom communication and KNXNet/IP protocol
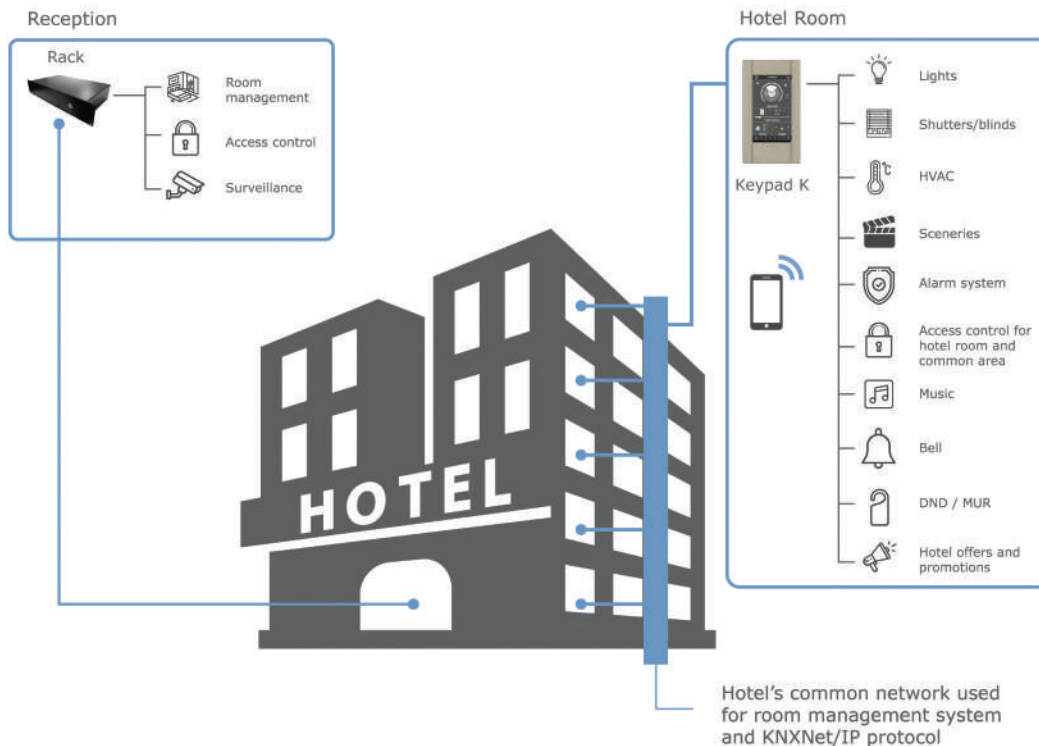
Case study 1: Residential Building

ThinKnx gives the residential buildings an added value on different aspects. Not only does it provide a full integration of the entire building with remote access to almost anything, but it also simplifies the maintenance, creates reports and helps with consumption accounting. The installation of a ThinKnx server (for instance an Envision) on each apartment simplify the topology thanks to the KNXNet/IP functionality and permits a substancial optimization of the overall costs.
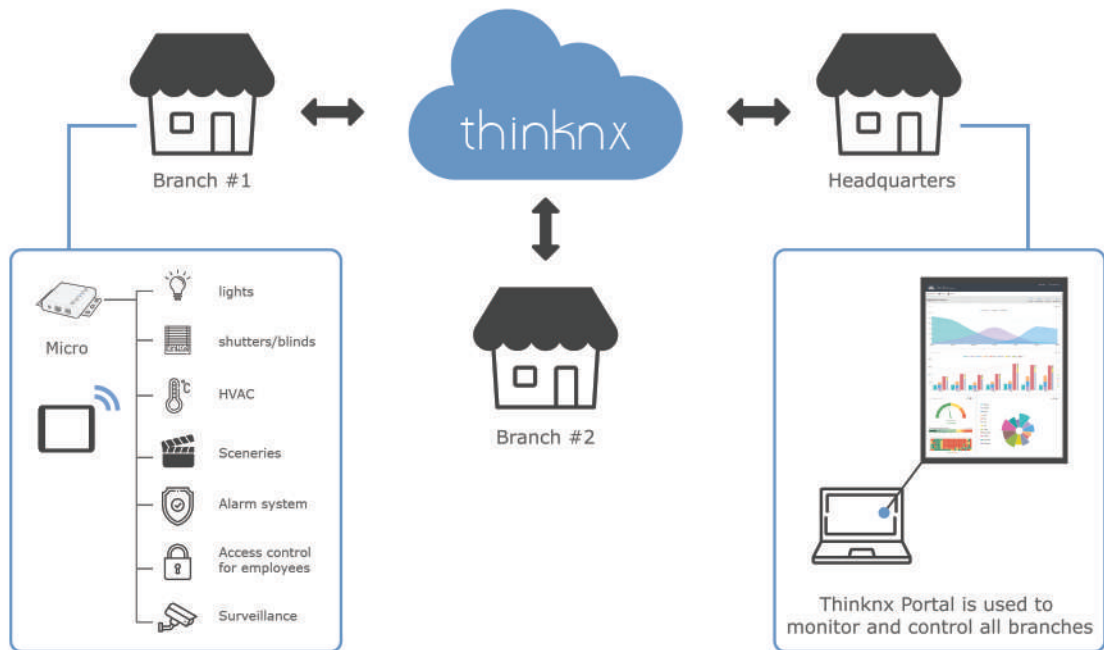
Case study 2: Multi-branch stores

ThinKnx not only offers a connection to a single server or plant, but the solution can also be extended to control multiple installations from one centralized location. Using ThinKnx Cloud and Portal, it is possible to remotely control each branch, create detailed reports and charts with comparisons of data coming from the sites, and maintain the plants while ensuring a multi-level authorization system.

Reception

Rack

Room management

Access control

Surveillance

Hotel Room

Keypad K

Lights

Shutters/blinds

HVAC

Sceneries

Alarm system

Access control for hotel room and common area

Music

Bell

DND / MUR

Hotel offers and promotions

Hotel's common network used for room management system and KNXNet/IP protocol

Case study 3: Hospitality

ThinKnx prioritizes the comfort and ease of hotel guests, offering them one single application that combines everything they would possibly need, from controlling lights, shutters, HVAC, creating their own sceneries and favorite playlists, to browsing through the hotel's offers and promotions as well as allowing them access to their room and common areas. ThinKnx can also easily integrate with any third-party GRM systems to allow flawless operations between multiple services.
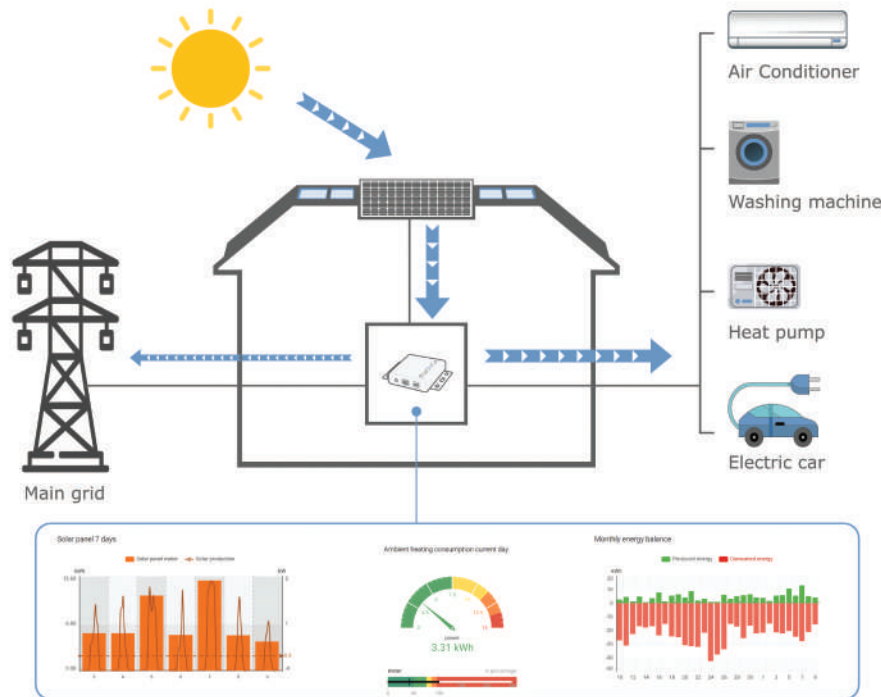
Case study 4: Energy Saving

ThinKnx can improve energy saving at home by making sure that resources such as water and electricity are used effectively. Energy consumption meters installed on site can send data to the ThinKnx server, which, in return, is able to view, monitor and control all loads depending on the current consumption. ThinKnx uses an optimization logic to turn loads on and off according to energy availability. Alarms and actions can also be configured in case the consumption exceeds or falls under a certain threshold.

Support Center

TRAINING AND DEMO SERVERS

ThinKnx provides a complete range of services in terms of consultancy, project planning and customization.

We schedule ad hoc webinars and free online training courses to grant installers and system integrators a complete technical support. ThinKnx values the customer's satisfaction, while focusing on the ease of use of its products and the pre/post-sale support.

New customers can test ThinKnx features through a demo-server, which is fully refundable in case of dissatisfaction. All demo servers come fully equipped with ThinKnx licenses.

ThinKnx Support Center is available for any technical support request. Customers can create a ticket per issue, which will be assigned a unique number that can be used to track the progress.

ThinKnx Wiki Page also provides all the information and user guides needed during installation, configuration and troubleshooting.
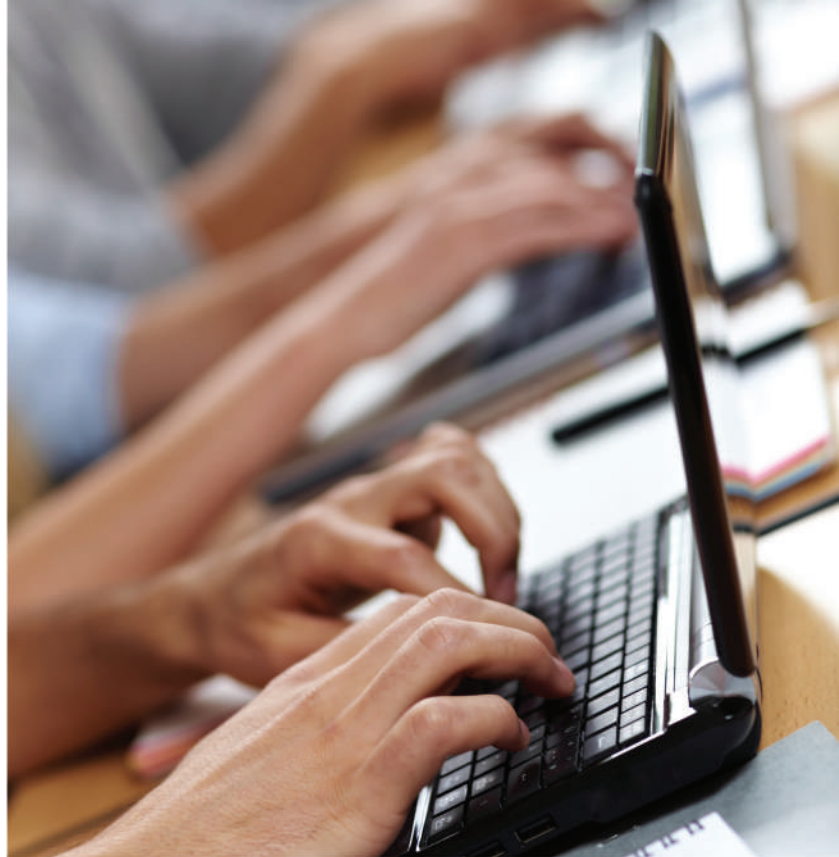
VIDEOS AND USER GUIDES

In addition to ThinKnx Wiki Guide, customers can subscribe to the official Youtube Channel "THINKNX" and learn about the desired topic from the selection which is growing day by day. The videos can also be found on ThinKnx official website under section "Support".

Contacts

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COMMERCIAL POLICY

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We always look for new partnerships and collaborations all over the world.
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