ekinex

CONTROL YOUR LIVING SPACE

Application Manual
EK-BW1-TP
KNX Voice control interface

Summary

Revision	Changes	Date
1.0.0	First release. Upgrade to firmware version V1.0.0	29/10/2020

Foreword

The present document includes a complete guide to the installation and configuration of the ekinex® KNX Voice control interface.

This document is aimed at the system configurator as a description and reference of device features and application programming.

This application manual is available for download at www.ekinex.com.

Document	File name (## = version)	Document revision	Latest update	Firmware server version	Changes
Application manual	MAEKBW1_EN.pdf	1.00	29/10/2020	V1.0.0	release

Amazon Alexa and Google Home configuration apps, available for Apple and Android mobile devices, can be downloaded directly from their stores.

Download on the App Store

ANDROID APP ON Google play

By means of a mobile device (such as a smartphone or a tablet) equipped with the proper reading software, you can access the most up-to-date version of the full documentation for the device using following QR codes:

ITALIAN

ENGLISH

1 Introduction

1.1 Legend

In this manual, the following symbols are adopted:

[KEY]	The keys that the integrator must press are written in square brackets
`Courier`	The software messages generated by the configuration software of the interface are written in “courier” font.
Function name	In the user interface of the configuration software, buttons, table fields or other graphic elements’ names are written in italic.
	Information notes containing details.
	Important notes which require special attention when configuring or operating the KNX Voice control interface.

1.2 Safety information

This manual contains all the information needed to safely operate with the device. People interacting with the device must read this document first, specifically this safety information. This document integrates and therefore does not substitute any regulation or law in terms of safety.

This device has been developed following the actual safety standards; however, it is not possible to exclude any damage or interaction with other devices during its operation. This device is compliant with all EMC guidelines and harmonized European standards; tempering with it can invalidate the EMC compatibility.

Power supply voltage must be within the range indicated in this manual and on the device label; if the power supply voltage is outside this range, which can lead to fire or explosion hazard. The CE declaration of conformity can be requested to ekinex®; for more information please visit our website www.ekinex.com.

	According to the 2002/96/EC standard, the electronic device named KNX Voice control interface must be disposed through the proper facilities and not among solid urban waste.

1.3 Copyright

1.4 Open Source Licenses

The KNX voice control interface contains open source software, such as the Linux operating system and its kernel. These software components are subject to various open-source licenses, including:

- GNU General Public License (GPL), https://www.gnu.org/licenses/gpl-2.0.html
- GNU Lesser General Public License (LGPL), https://www.gnu.org/licenses/lgpl-2.0.en.html

If you are in possession of a product, for a period of 3 years from the last date of production, you can request from ekinex the source code of the software components licensed under the GNU General Public License (GPL) or the GNU Lesser General Public License (LGPL), and use, distribute and modify them in accordance with their respective licenses.

ekinex cannot be held liable in any way for the source code so distributed, which is provided without warranty.

ekinex shall also not be liable for any damages or consequences resulting from modifications (additions / removals) made to such software by third parties, unless specifically authorised.

For further information, please contact the ekinex technical support service.

2 General presentation

The voice control interface acts as a gateway between a KNX network (TP, twisted pair) and home speakers equipped with Amazon Alexa or Google Assistant. The interface, connected to ekinex cloud service, is suitable for the voice control of light, climate and motorisation of a modern KNX standard building.

The product is designed for installation on a DIN profile rail and occupies 2 modules. The 12-24 Vdc power supply is external (power supply not included in the supply). The product with hardware based on embedded operating system, has a KNX TP node (twisted pair) and can therefore be connected directly to the bus network of KNX devices. External connectivity is provided via the Ethernet port that connects the device directly to the home router. Configuration can be done via the configuration environment integrated in the device's web server.

2.1 Characteristics of the KNX interface

- Configuration environment integrated in the device's web server with local or remote access (via cloud)
- Registration and subscription to ekinex cloud services
- Automatic import of the ETS project and merging with previous imports
- Configuration of max 12 rooms
- Configuration of voice control accessories (max 150 accessories): lighting (on/off, dimmed and RGB), motorizations (open/close stop and position), climate and alarms
- Configuration of sequences of actions on the KNX bus (which can be deferred with configurable delays), which can be called up as scenarios by the voice assistants
- Configuration of the IFTTT (If This Than That) cloud platform for the creation of association rules between events on the KNX bus and compatible services (e.g. sending e-mail)

On Google's Amazon Alexa and Assistant apps, the Ekinex skill and action are available for the complete configuration of the service.

2.2 System architecture

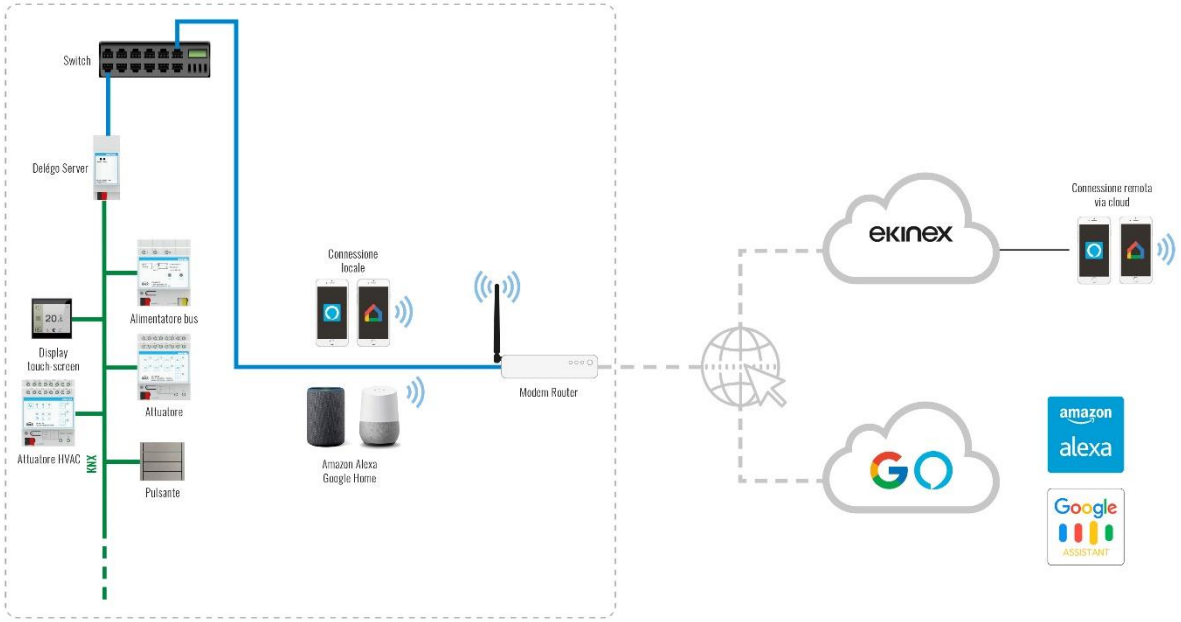
The KNX interface for voice control connects directly to the KNX system and the building's LAN network, through which it can be configured either locally or remotely via a web browser. The interface must be registered and connected to the ekinex cloud to be able to interact *cloud to cloud* with Amazon and Google and with the artificial intelligence of their voice assistants.

Communication with voice assistants does not therefore take place directly, but always through the cloud. KNX devices in the field transmit their configuration, i.e. what and how many "functions" they provide to the cloud. The ekinex cloud makes these functions available to Amazon and Google's "intelligent home" management (in the respective "languages").

The assistants send the voice recording to the respective cloud, which is recognised and converted into commands or requests. Responses and feedback to commands go the other way.

Recognition of voice and semantic value of sentences is done by Amazon and Google clouds, not by ekinex clouds or field devices. Amazon and Google decide who the commands are intended for (ekinex cloud).

These decisions are made on the basis of the skills that each user enables on their account, and on the configuration transmitted during discovery.



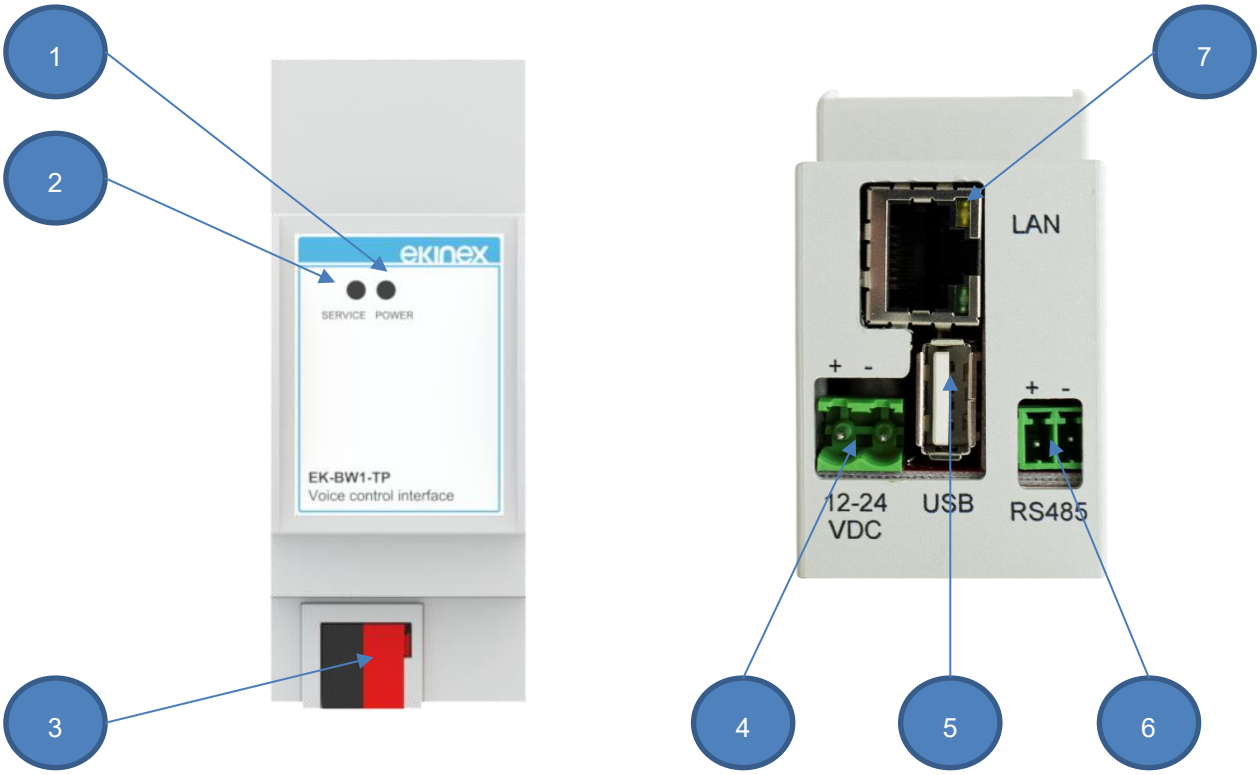
2.3 KNX interface's technical data

TECHNICAL SHEET – EK-BW1-TP	
Power supply	12 Vdc / 24 Vdc via separate power supply unit not included in the scope of delivery
Absorption	240 mA at 12 Vdc
Interfaces	1 KNX TP (twisted pair), 1 RS485 (NOT USED), 1 USB 2.0 (NOT USED)
Ethernet connection	RJ45
LED	Green POWER Red SERVICE
Operating temperature	0...+40 °C
Storage temperature	-10...+70 °C
Dimensions	36 x 90,5 x 62 mm (LxPxH), 2 MU (1 MU = 18 mm)
Material	Plasting housing
Assembly	Design for mounting on 35 mm profile rails
Disposal	The product complies with the Low Voltage Directive (2014/35 / EU) and the Electromagnetic Compatibility Directive (2014/30 / EU) Tests carried out in accordance with EN 50491-5-1: 2010, EN 50491-5-2: 2010

3 Basic server operations

3.1 Control, signalling and connections elements

The KNX voice control interface is equipped with status LEDs, power supply terminals, KNX twisted pair bus line and Ethernet network.



1. LED POWER 2. LED SERVICE 3. KNX bus line connection terminal 4. 12-24 Vdc power supply 5. USB port (NOT USED)	6. RS485 bus line connection terminal (NOT USED) 7. RJ45 Ethernet link

Signaling elemnts:

- LED POWER: indicates the presence of 12-24 Vdc power supply at terminals
- LED SERVICE: Normally off, steady mode or flashing during IP address recovery sequences or factory reconfigurations.

Control elements:

- RESET button: must be pressed to activate IP address reset sequences or factory settings.

RESET button is not directly accessible on the front panel of the product. To access the button, open the front panel of the KNX voice control interface using a small slotted screwdriver and exerting a slight leverage effect in one of the side slots. Locate the RESET button on the back of the vertical board at the bottom of the device towards the KNX terminals.

3.2 Connection to KNX bus

The connection to the KNX system is made through a common KNX certified cable directly connected to the server through the standard red-black terminal supplied; it is important to respect the polarity of the cable for a correct functioning of the device.

The connection to the KNX bus is not strictly necessary for its configuration; however, it is not possible to verify the correctness of the project or simulate the automation functions configured in the server until such a connection is established.

3.3 Ethernet connection

The configuration and use of the KNX voice control interface requires a connection to the home or company network. The default IP address of the interface is: 192.168.0.110.

For the initial configuration of the interface, as well as in case of absence of a network during the installation phase, it is necessary to proceed as follows:

connect the interface to your PC via a "crossover" network cable

access your PC's network settings, as illustrated in your operating system documentation

Change the TCP/IP communication protocol settings (version 4) for the LAN port of your PC, and set the following parameters manually:

- connect the interface to your PC via a "cross over" (or "crossover") network cable
- access your PC's network settings, as illustrated in your operating system documentation
- Change the TCP/IP communication protocol settings (version 4) for the LAN port of your PC, and set the following parameters manually:
  - IP address: 192.16 8.0.100
  - network mask: 255.255.255.0
  - default Gateway: 192.168.0.110

Save and wait for the new settings to take effect. If prompted, reboot the system.

After these operations, open an Internet browser and type in the address bar:

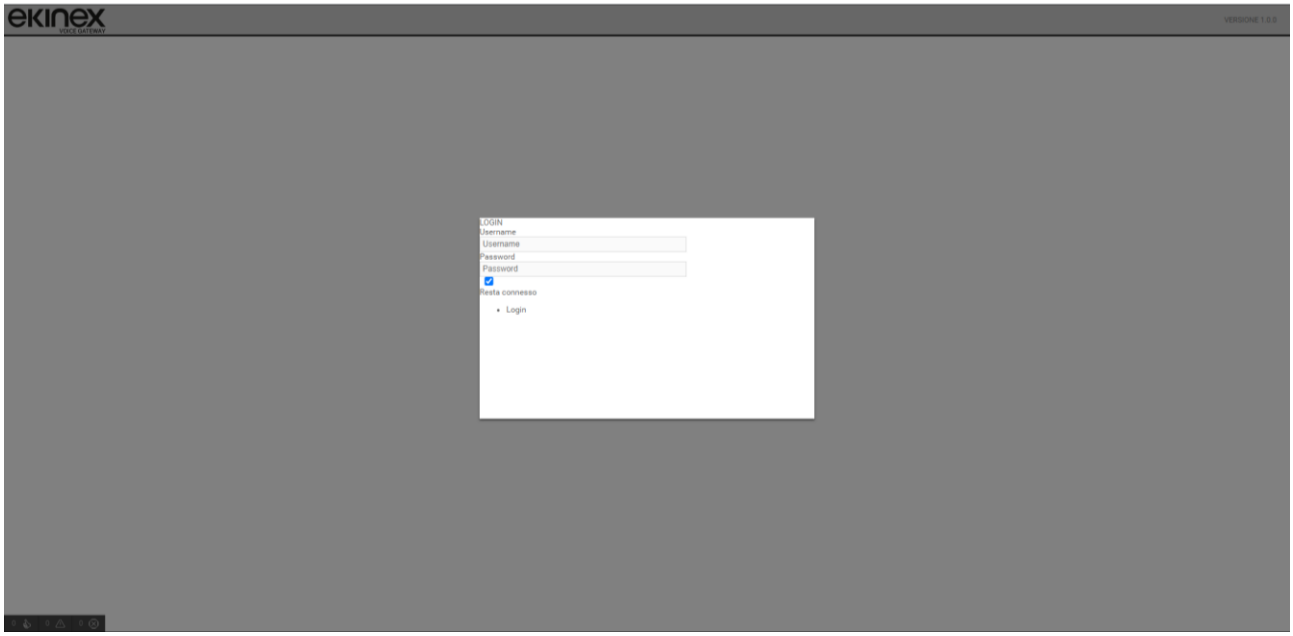
http://192.168.0.110

For an optimal navigation experience, we recommend using one of the following browsers:

⇒ Google Chrome
⇒ Apple Safari

3.4 First login

By opening the browser at the default address, the following login screen is displayed:



The KNX interface has the following preset users at the factory:

User	Password	Description
admin	admin	Automation system administrator user. He has the rights to create users, manage their rights and configure the supervision

Enter the user credentials "admin" and confirm to access the main screen of the software; to access the configuration section, open the side menu and select CONFIGURATION.

3.5 Restore factory IP address

If necessary, you can restore the factory IP address of the KNX interface using the RESET available. Follow the procedure below:

- open the front panel of the interface using a small slotted screwdriver and exerting a slight leverage effect in one of the side slots
- locate the RESET button on the back of the vertical card
- Press the button for at least 10 seconds until the SERVICE LED on the front of the device starts flashing, then release the button.
- within the next 5 seconds, press and release the button for 1 second; within a couple of seconds the front LED will light up solidly for a couple of seconds
- When the LED goes out, the device can be reached at the factory IP address (**192.168.0.110**).

If the LED goes out after long press (10 seconds) before short press, repeat the whole procedure. This procedure resets the IP address and retains all data relating to the configuration previously carried out on the automation system.

3.6 Restore factory configuration

If the configuration made makes it impossible to access the KNX interface or its correct use, it is possible to restore the factory conditions by resetting the IP address and emptying the project using the "RESET" button available.

In this case, compared to what was previously seen to restore the IP address, the procedure from

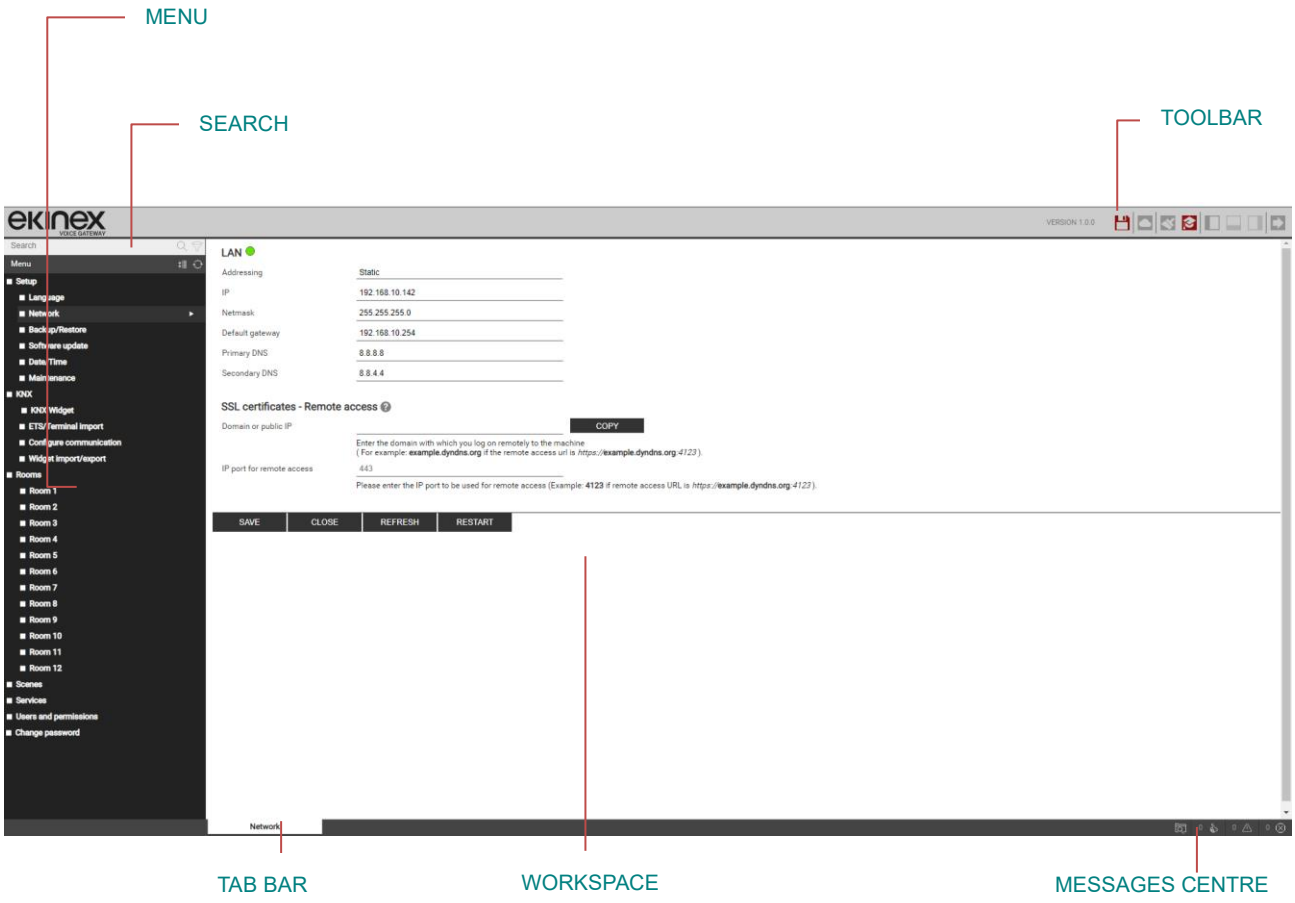
to follow is the following:

- Open the front panel of the interface using a small slotted screwdriver, and exerting a slight leverage effect in one of the side slots
- Locate the RESET button on the back of the vertical card
- Press the RESET button for at least 10 seconds until the SERVICE LED on the front of the device starts flashing, then release the button.
- Within the next 5 seconds, press and hold the button for at least 10 seconds
- When the LED is solidly lit, release the button and wait for it to go out.
- When the LED goes off, remove and restore the power supply
- Wait about one minute and log in to the interface with the factory IP address (**192.168.0.110**).

4 Setup environment

Before going into individual aspects of the configuration, you should familiarise yourself with the graphical environment that the KNX voice control interface provides, which is divided into the following sections:

SEARCH	Always available at the top left, it allows you to quickly search for objects based on one or more keywords.
MENU	Tree menu that offers access to each page or section of the software, as well as to create, modify or delete objects.
TOOLBAR	Always available at the top, it provides a series of buttons to perform the most commonly used operations.
WORKSPACE	Main section of the page; initially empty, it houses the object tabs or software configuration pages. It is possible to use several tabs at the same time, passing between them through the "TABs" available once you have opened at least one page.



4.1 Toolbar

The toolbar provides the following buttons at any time:

	SAVE ON FLASH	It allows to force the saving of the database on the persistent flash memory of the voice interface, guaranteeing the persistence of the data even after a system shutdown. The button turns red to indicate the presence of unsaved changes; persistent saving occurs automatically every 5 minutes, so it is not necessary to force saving unless it is necessary to shut down the system before this happens.
	CLOUD MANAGER	Allows you to access cloud services integrated with the interface, subject to registration. In particular, it allows the configured accessories and scenarios to be synchronised and then controlled by voice assistants.
	CLEAR CACHE	Force the erasure of all cache mechanisms. Use this button only when necessary, if the on-screen content does not reflect the configuration made.
	BASIC / ADVANCED	It allows you to set the level of visibility of functions and properties of objects within the pages; the BASIC level offers access to the most common items and only those set as "VISIBLE", the ADVANCED level allows you to manage all the parameters and access to hidden objects.
	OPEN / CLOSE SIDE PANELS AND LOWER	Allow you to expand or hide the left side panel (MENU), right side panel (OWN) and bottom side panel (MESSAGES CENTRE) respectively.
	LOGOUT	Allows you to close the work session and authenticate with a different user.

4.2 Navigation menu

The navigation menu allows you to access all the administrative sections of the voice interface and perform the main operations on objects. The menu is divided into the following main sections:

SETUP	Contains the configuration and general management pages of the voice interface
KNX	Allows you to configure the functions of the KNX system to be managed with voice assistants
ROOMS	Allows you to customise a predefined set of environments and associate them with KNX functions, speeding up subsequent configuration in voice assistants' apps
SCENES	Allows you to configure sequences of KNX commands that can be recalled with the entry
SERVICES	Allows you to manage the matching of the voice interface with the cloud and synchronisation with voice assistants
USERS AND PERMISSIONS	Allows you to configure the system access accounts and determine what rights they have on the different functions
CHANGE PASSWORD	Page that allows any user, even with basic rights, to change their password

The menu has the typical tree menu structure; when the administration environment is loaded, it makes the top-level sections available, while the top-level sections can be accessed by "expanding" the sections containing them. All navigation operations within the menu can be performed with the mouse.

When you click on a menu item, it is highlighted in blue; if the item has sub-items, they are loaded and shown below, effectively expanding the selected item. To close the section, click on it again (once it's selected).

If the selected menu item has one or more operations, they will be made available in the toolbar at the bottom through special buttons; the operations can be:

NEW	Allows you to create a new object within the selected section. According to the specific section, the creation of specific types of objects is allowed; in the case of more than one type available, a contextual menu of choice is shown
MODIFY	Allows you to modify the properties of the selected object by opening its tab in the workspace
DELETE	Allows you to delete the selected item from the project

If the selected item allows editing, three "dots" are available on the right when selected, representing a shortcut to pressing the edit button on the toolbar.

When an item is open in the workspace, there is an arrow on the right side; when the corresponding TAB is closed, the arrow is hidden and the menu item shows the three editing dots again, if selected.

4.3 Search

By typing one or more keywords in the appropriate field at the top left, all objects within the project, which contain such words in the name or in one of the main properties, are searched for; the results are shown on the left side of the interface, which temporarily occupies the space normally allocated to the navigation menu.

By clicking on a result item, it is highlighted in light grey; as already seen in the case of the main menu, if it allows you to perform operations they are available in the TOOLBAR available below. Again, if the object allows it, three dots are shown on the right side as a shortcut to opening the edit tab inside the WORKSPACE.

In analogous way to what seen for the MENU, also on the results of the search it is possible to carry out the following operations:

MODIFY	Opens the selected objects tab
DELETE	Removes selected objects from the project

The search engine also allows multiple selection by pressing the CTRL key during selection with the click; in this case, the operations will be carried out on all the selected objects.

4.4 Workspace

The WORKSPACE is the main working area of the administration. It provides the possibility of operating simultaneously on more than one TAB, i.e. on more than one configuration page; these pages are opened when a MODIFICATION operation is carried out on an object starting from the MAIN MENU or SEARCH.

Open TABs are displayed in the TAB-BAR at the bottom; if there are a large number of open TABs, you can access the hidden ones using the appropriate button.

To close an open TAB, simply move the mouse over it and click on the close button (shown only when the mouse is over it). The corresponding window is closed; if there are unsaved changes, you will be asked for confirmation before closing it, with consequent loss of data.

4.5 Message centre

At the bottom right is a summary of the number of notifications generated by the system, divided according to their level of severity. Pressing on it opens a panel containing details of the most recent notifications, as shown in this example:

Each notification is accompanied by the date and time when it occurred. You can empty the list of notifications with the recycle bin at the bottom right, or download the log in CSV format.

5 Setup

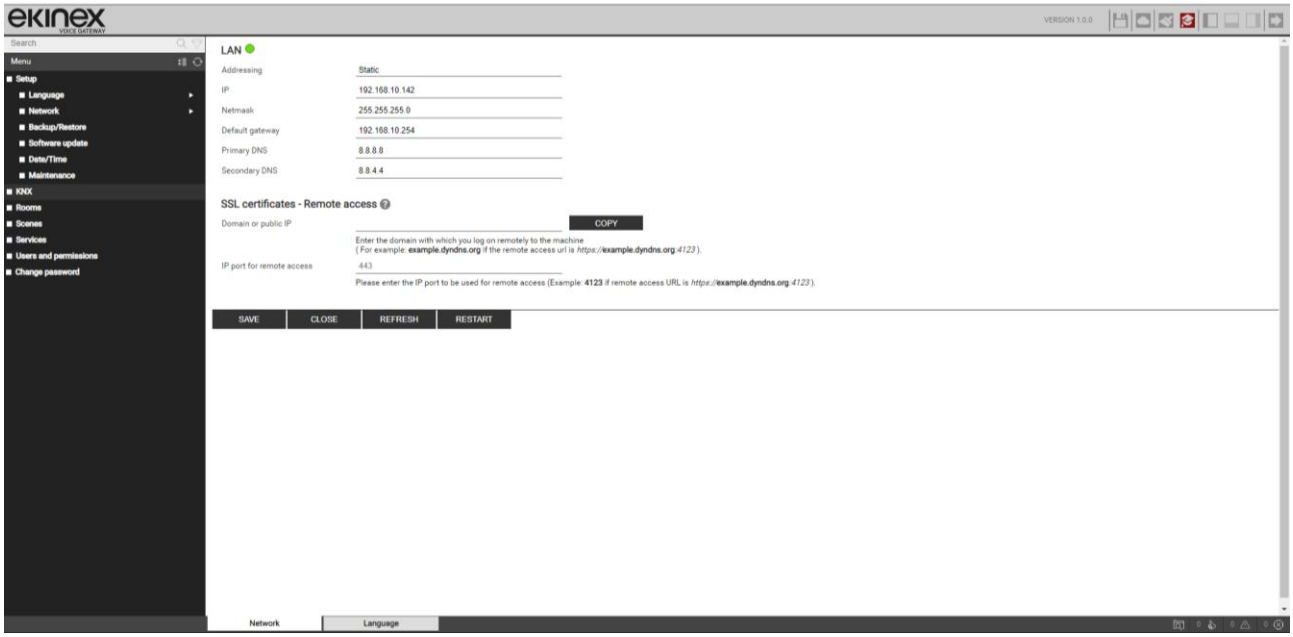
This chapter explores the administration tools offered by the KNX voice control interface for proper installation and maintenance. All the pages described in this chapter are accessible via the "SETUP" section of the navigation menu; some of them may not be available according to the rights of the user with whom you are logged in.

5.1 Language

This page allows you to set the language to be used in the different graphic themes; the themes are used in the CONFIGURATION or VISUALIZATION environment to generate the graphic interface. Select a language from those available, then press the "SAVE" button to confirm the changes; when you have finished saving, the page will be reloaded, using the new language settings.

5.2 Network

This page allows you to set the network parameters of the KNX interface for voice control.



For the LAN the required parameters are:

IP	Address to assign to the KNX interface; it must be unique in the network, and have the first three numbers equal to those of the other network devices (unless otherwise specified by the LAN administrators)
NETMASK	Set "255.255.255.0" unless otherwise indicated by LAN administrators
DEFAULT GATEWAY	Enter the IP address of the Internet router (if any) or network reference server, unless otherwise specified by the LAN administrators. NOTE: to allow remote access to the KNX voice interface it is essential that this parameter is set exactly to the network address of the internet router (e.g. ADSL) with which you want to manage access from outside the LAN. For further information please refer to the appropriate section of this manual.
PRIMARY DNS SECONDARY DNS	DNS addresses to allow the voice interface to access the internet (if there is a network connection). Ask for directions from network administrators or leave factory settings in case of doubt.

Once the network parameters have been changed, press the "SAVE" button to make them effective; the saving operation takes a few seconds, during which a progress window is shown.

If you have changed the IP address, at the end the page will be reloaded to the new address. If in the meantime you also need to change your PC's network connection, reload the page manually.

Particular attention must be paid to the accuracy of the data before saving, as it may no longer be possible to reach the interface correctly through your network.

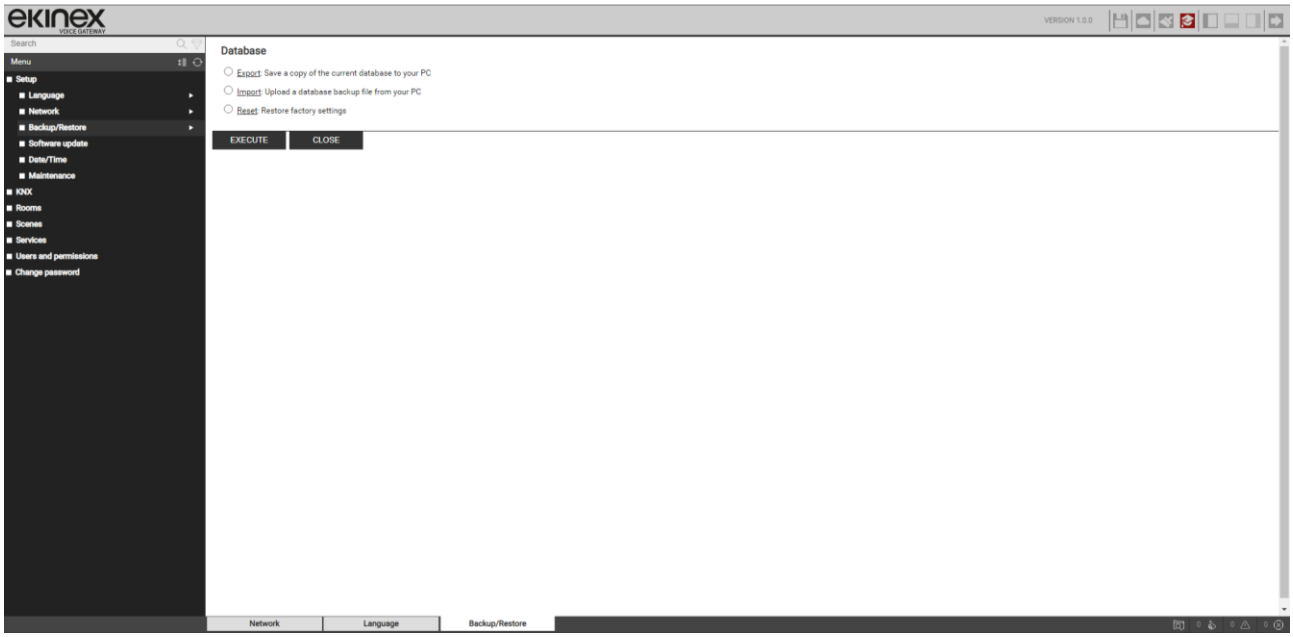
In this case, reset the factory IP address using the reset button by following the instructions in the manual.

Once the network connections have been configured, a coloured indicator is available at each one, indicating the connection status.

5.3 Backup/Restore

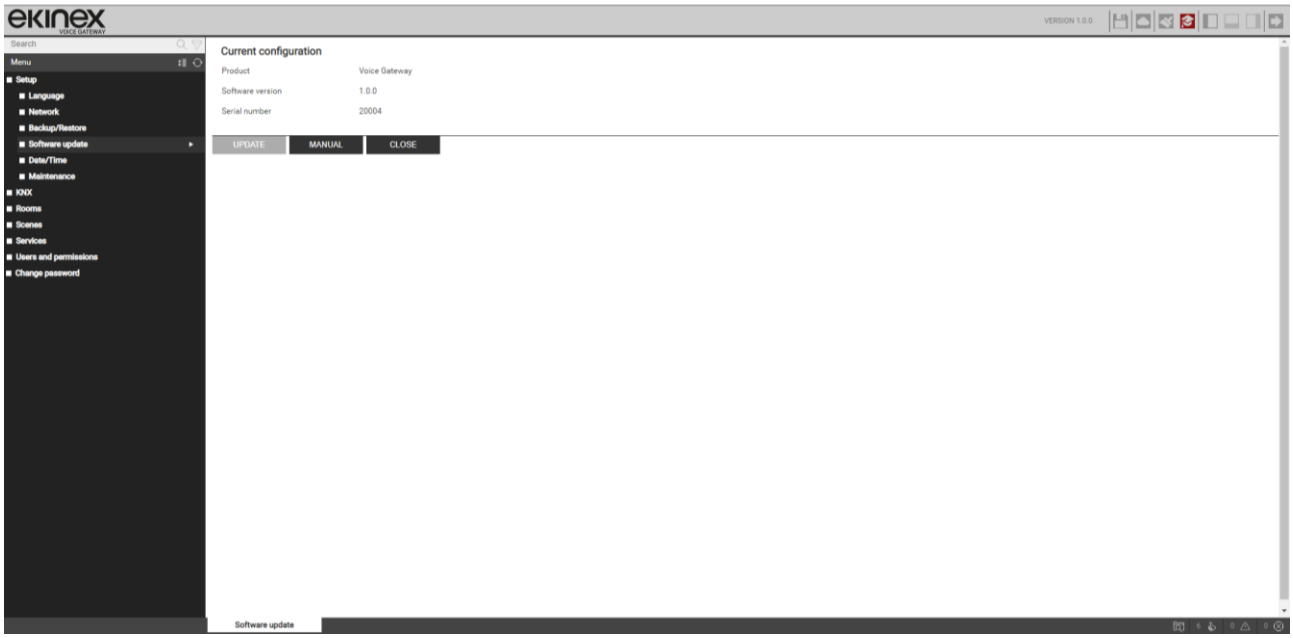
This page allows you to make a backup copy of your voice control project or, vice versa, to import a previously made backup (even a different one. It is also possible to restore the voice control interface to factory settings by choosing the appropriate voice (the network address is not changed).

Once you have chosen the operation you wish to carry out (and selected the backup file in case of import) press the "RUN" button and wait for the end of the operation, indicated by a special on-screen message. Do not interrupt the procedure by carrying out other operations in the browser or closing it, otherwise it may malfunction.



5.4 Software update

This item allows you to update the software inside the voice control interface; only use official installation packages, otherwise malfunctioning may occur.



When you access the update page, you are automatically searched for a newer version in the cloud. If a new version is detected, pressing the UPDATE button will perform the installation.

If an internet connection is not available, you can proceed manually as follows:

- Access the update page
- Press the MANUAL button
- Ask ekinex technical support for the latest version of the package, and save it on your PC without unpacking it.
- Select the update package using the "BUZZER" button (or similar, depending on your browser)
- Click on the "UPDATE" button

The update procedure takes place completely automatically; wait for the procedure to be completed without carrying out any other operations on the browser and without closing it (otherwise the voice interface may malfunction). The procedure may also take several minutes, depending on your software version and configuration.

At the end, a summary summary of the operation is proposed, with the new software version; to complete the procedure, press the "RESTART" button which will restart the KNX interface operating system for voice control.

If the update procedure should be interrupted due to accidental causes (e.g.: power failure, loss of network connection with your PC), try the following operations:

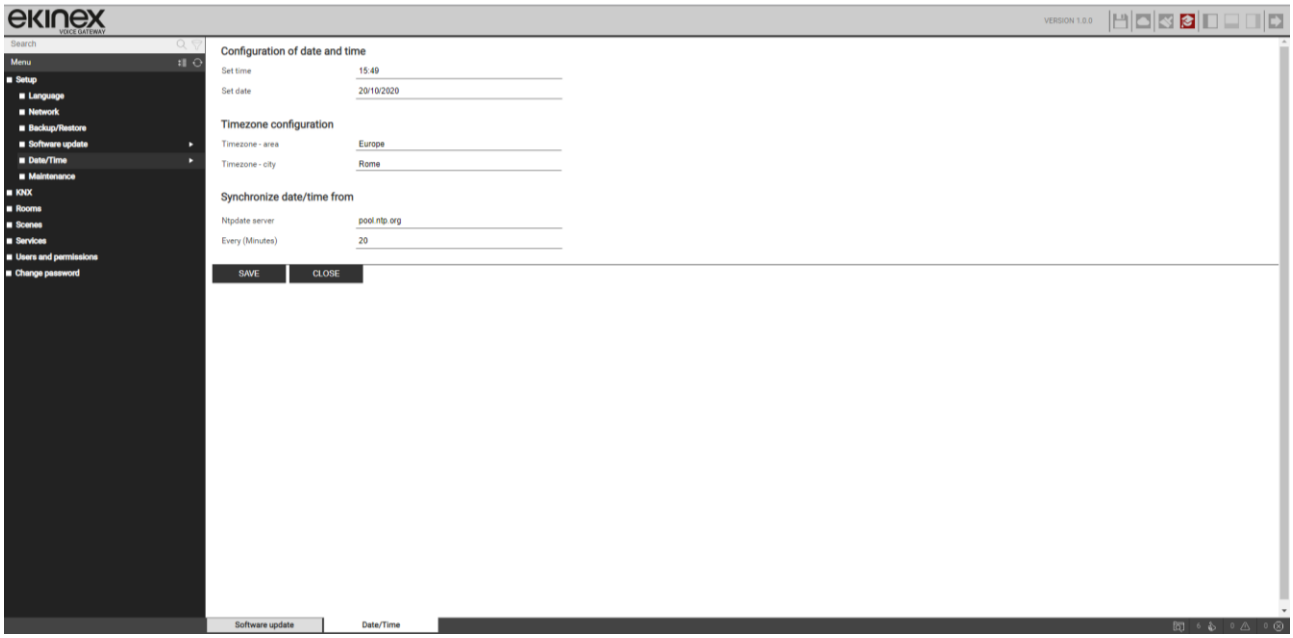
- Switch the device off and on again
- Wait a minute, then open the browser at the IP address of the interface
- Wait for the automatic reset procedure to be completed, and the voice interface to restart again

The automatic reset procedure is also started by performing a complete reset from the reset button. If the automatic reset does not unlock (wait at least 15 minutes to be sure), contact ekinex technical assistance.

5.5 Date/Time

This page allows you to set a number of options related to the system clock.

DATE HOUR	Timetable to be set manually
TIMEZONE	Select the reference time zone
SYNCHRONIZE NTP SERVER	Address of the NTP server from which to request updated internet timetables
SYNCHRONIZE EVERY	Number of minutes between time requests



DATE AND HOUR

This section allows you to manually set the system time. Enter the time and date and press the "SAVE" button; while saving the time, and consequently restarting all communication services, a page with a warning message is shown.

Under certain conditions, saving a different time than previously set in the voice interface may result in the display of a "gateway timeout" error page.

In this case, simply reload the page; if the problem persists, switch the voice interface off and on, wait about a minute and reconnect.

TIMEZONE

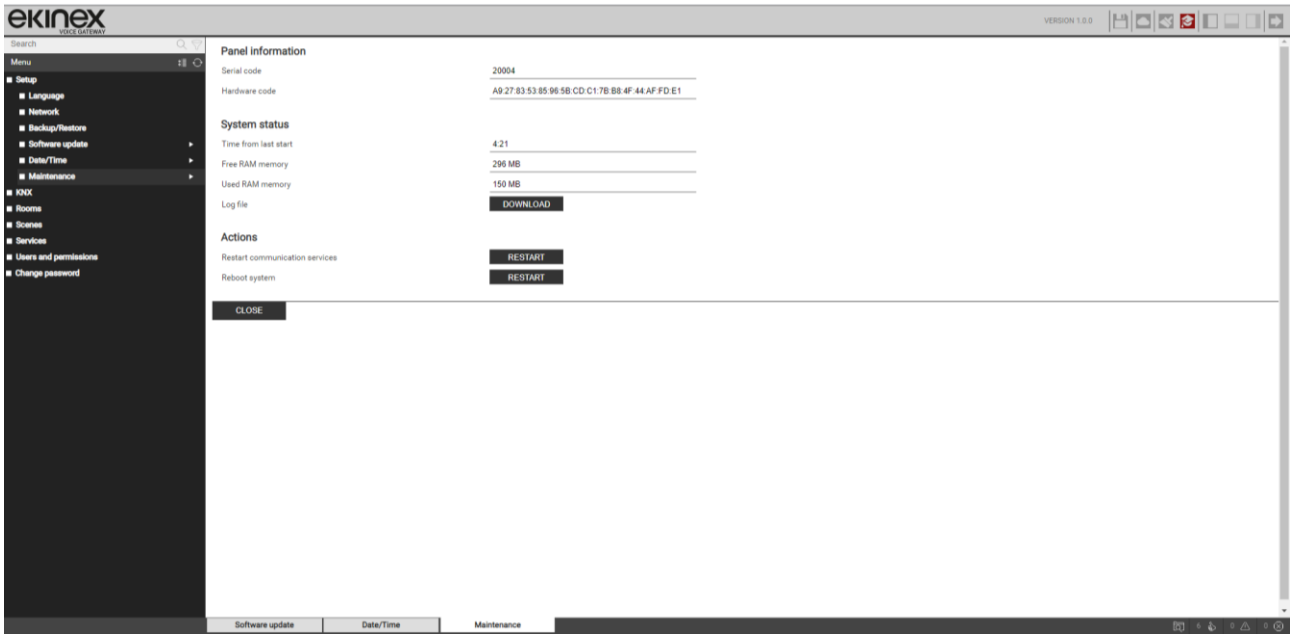
Allows you to set the working time zone of the interface, if different from the default one.

SYNCHRONIZE DATE/TIME FROM

This section allows you to automatically update the time of the interface, through an internet service; you must specify a time server (if different from the default one) and every how many minutes perform the synchronization.

5.6 Maintenance

This page allows you to monitor the operating status of the interface and perform some recovery operations.



The following information is displayed in the "SYSTEM STATUS" section:

TIME FROM LAST START	Voice interface start-up time
FREE RAM MEMORY USED RAM MEMORY	RAM memory free or used respectively

It is also possible to download the communication services log file on your PC / MAC; this file can provide our customer service department with useful information to solve any problems.

In the "ACTIONS" section, vice versa, you can perform the following activities:

RESTART COMMUNICATION SERVICES	It forces the restart of communication services that manage the dialogue with technologies and carry out logical operations. Try this operation if there are problems in communication with the technologies, or if any changes to the configuration have not been automatically received.
REBOOT SYSTEM	Forces the device to restart without having to do manually on the power supply

6 Rooms

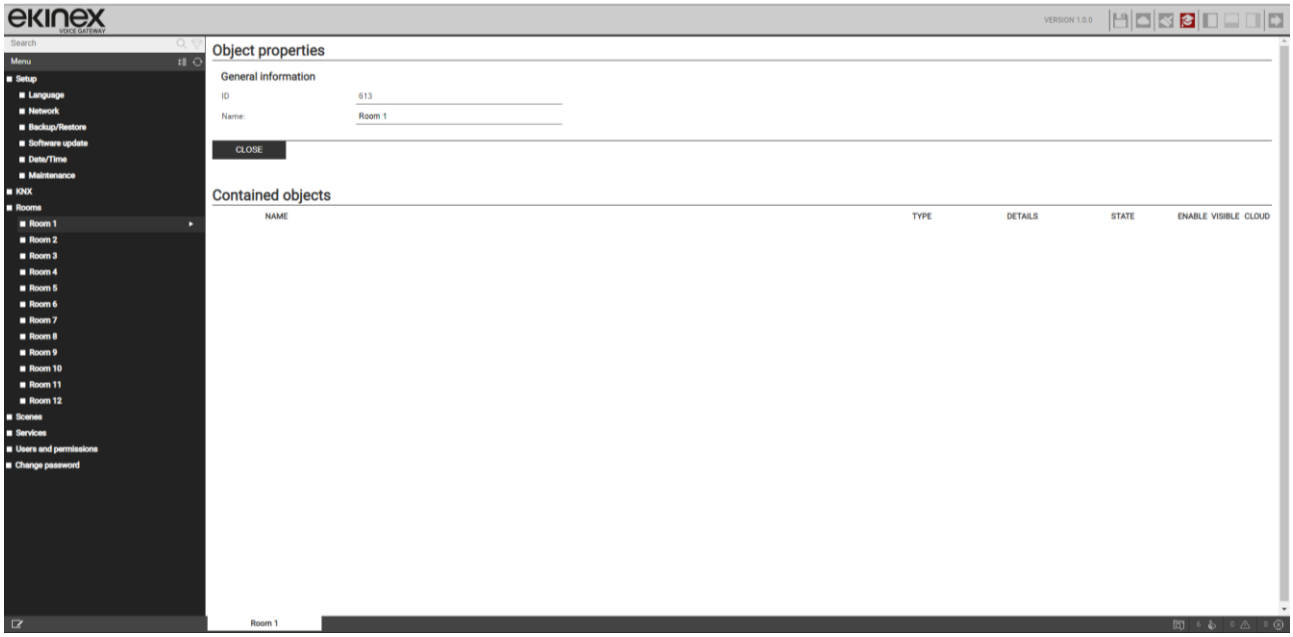
The KNX voice control interface provides max 12 pre-set rooms in which KNX components can be organised. While this is not mandatory, it can speed up subsequent configuration within voice assistants' apps.

6.1 Modify a room

To change the name of a preset room, proceed as follows:

- Select the ROOMS item to expand it
- Press the 3 dots next to the same item to open the list
- Change the definition name of the various rooms

You don't need to change all the entries, only those that will contain widgets. Empty rooms are not synchronised with voice assistants.



6.2 Widget association

It is possible to associate a technological graphic component to a room in two ways:

- In the graphic components configuration page, select the room to which it belongs through the appropriate drop-down menu
- Once the room page has been opened, search for the widget in the side menu or with the search engine, and drag it to the CONTENT OBJECTS section.

7 KNX

Using the KNX interface for voice control requires you to define one or more widgets that represent the devices you want to control with your voice.

Once a widget of the chosen type has been created, it is possible to associate the KNX group addresses to the various functions; it is not necessary to compile the entire list of addresses provided, even though the lack of certain addresses could limit or compromise voice control altogether.

The command address and, optionally, the corresponding status address are entered for each function; read-only functions only provide a status address. All addresses must be specified in X/Y/Z format following the KNX numbering rules.

7.1 Importing ETS project

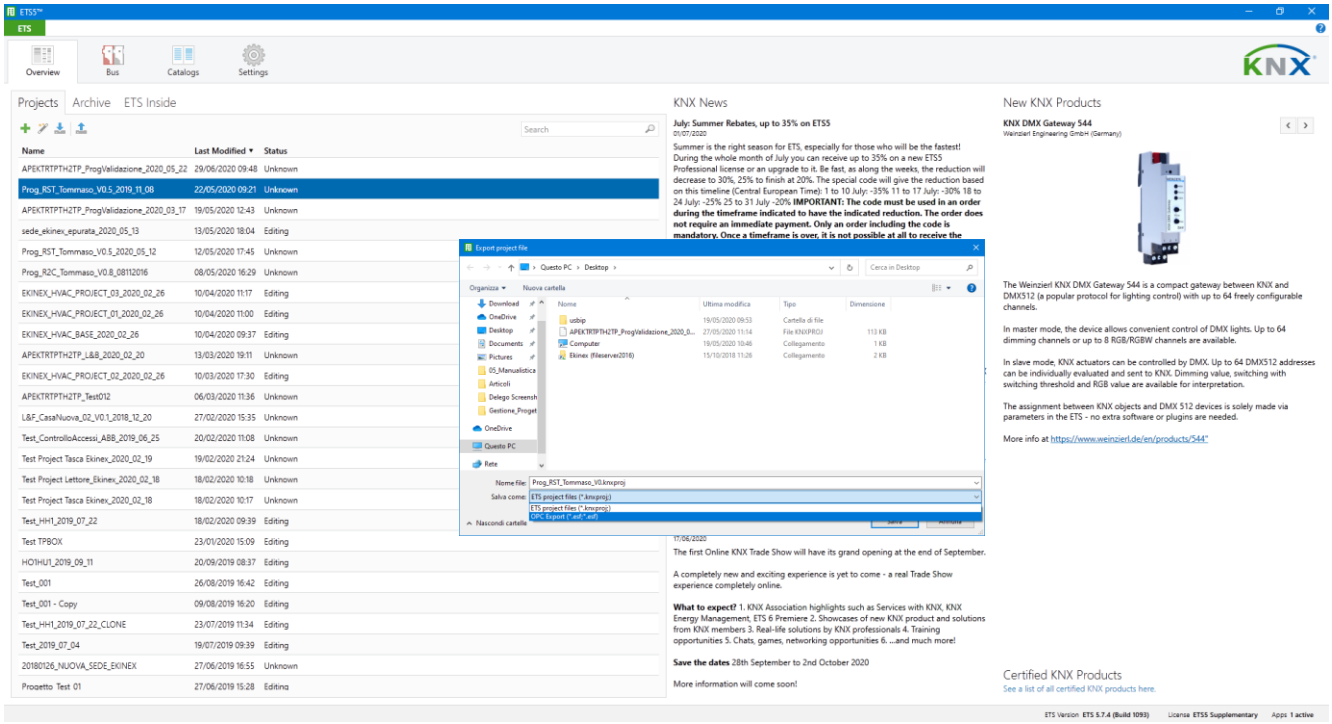
The automatic import of the ETS project (version 4 and later) is an indispensable tool to facilitate the entire project cycle of the KNX automation system, from the preliminary version to the as-built version. The system integrator can associate automatically imported group addresses to define the functionalities of the graphic components that make up the display environment:

- ETS project format: OPC Export (Open Platform Communications) extractable with ETS4 and later versions
- Importing the group address structure (1-3 levels), descriptions and KNX communication object type
- Support for subsequent imports and/or manual introduction with merging of new group addresses
- Configuration acceleration tools with automatic detection of status feedback addresses by name matching and group address filters
- Copy of graphic components by means of offset on group addresses: this function allows to automate the supervision project by creating copies of the widgets with the communication objects appropriately translated.

Once the project has been imported, the group addresses are available in the menu on the left and can be dragged manually into the widget definition. During the association of objects in the widget tabs, convenient drop-down lists allow you to automatically select objects with compatible data type.

To make the most of your import options, please read this chapter carefully. The adoption of rules in the definition of main groups/intermediate groups/group addresses as well as the adoption of a shrewd nomenclature in the descriptions of group addresses in the ETS project allows to speed up the project creation activity with voice assistant.

7.1.1 Exporting ETS5 project



OPC export can be carried out with ETS5 by following these steps:

- In the main menu of ETS with the list of projects, select the project to export and press the *Export* button or by right mouse button select *Export*
- In the *Export project file* window, in the *Save as* field, select the *OPC Export option* (*.esf; *.esf)
- Choose the file name and press the *Save* button in the *Export project file* window

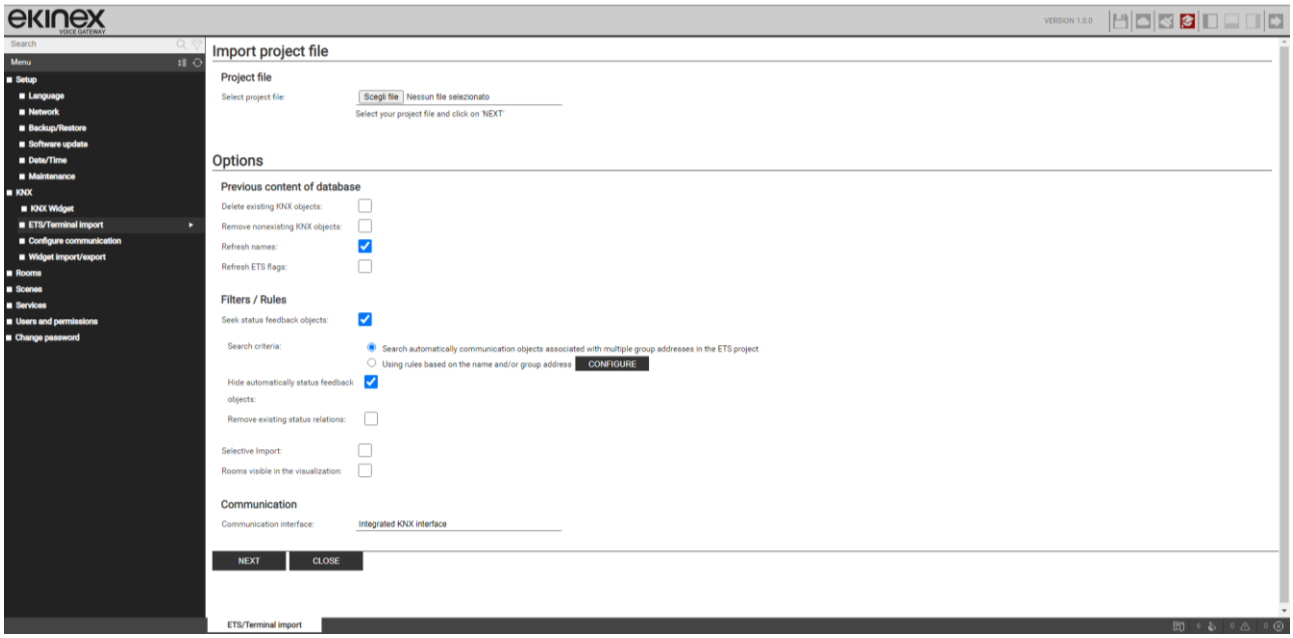
2 files will be generated: one with the extension *.esf* and one with the extension *.phd*.

For the correct import of ETS project files into the KNX voice control interface, the file name must NOT contain special characters.

7.1.2 Import: preliminary phase

To import a new ETS project, go to the page:

TECHNOLOGIES > KNX > ETS/Terminal Import



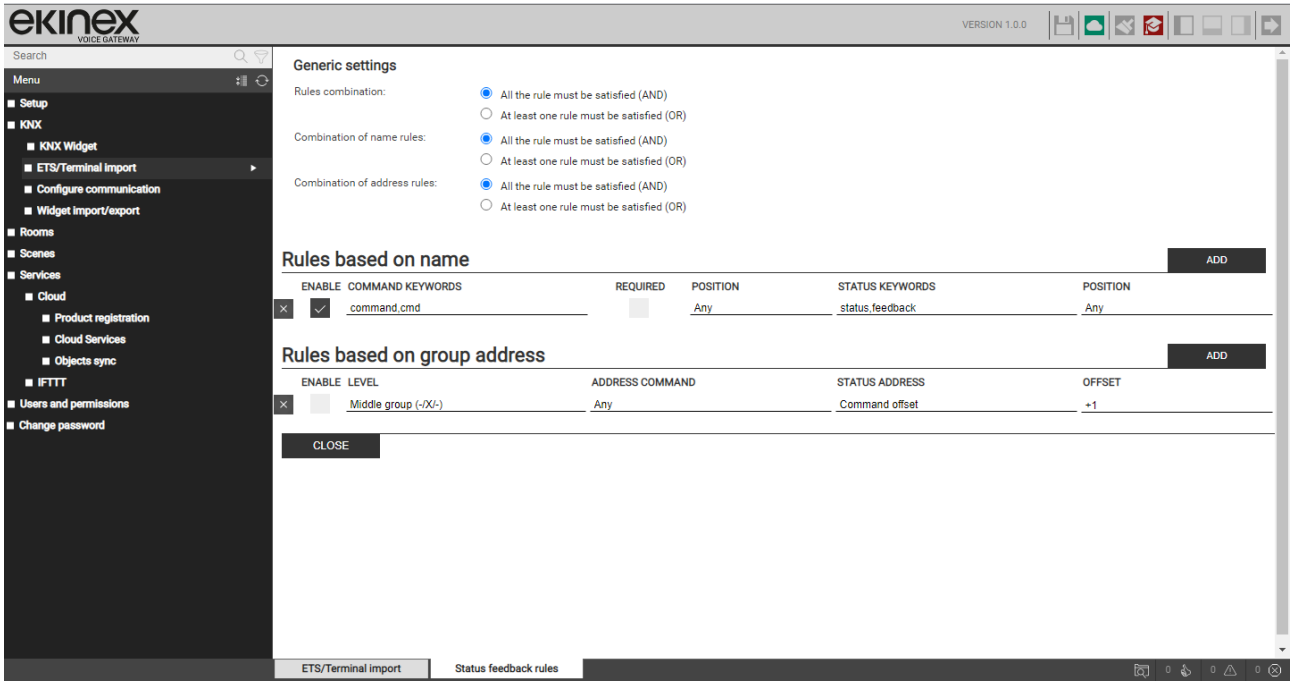
The page contains the following options:

PROJECT FILE	Using the *Choose file* button, you can select the file with the extension *.esf* in the folders of your PC. The file must be previously exported from ETS selecting the OPC Export mode: this export mode automatically generates 2 files: a file with *.esf* extension containing the descriptions and type of group addresses used in the project and a file with .phd extension containing the list of physical addresses of the devices. Once the *.esf* file has been selected, a second button *Choose file* appears automatically, through which you can select the *.phd* project file in the folders of the PC.
FILTERS/RULES	Status feedback search: by enabling this option it is possible to activate the automatic search for command addresses and corresponding feedback addresses, through special rules on the name or group addresses

When you enable ADVANCED mode, you can also specify the following with the ADVANCED button in the toolbar at the top:

PREVIOUS CONTENT OF DATABASE	The *Delete objects not present in the project* option allows you to delete all objects from the web-server that are not already present in the project to be imported. There are other settings to be selected with flags: ▪ update labels: updates the descriptions of a previous import for already defined objects ▪ update ETS flags

By pressing the CONFIGURE button at the status feedback search rules, the following page is shown:



The correct configuration of these rules is very important, in order to greatly speed up the subsequent work of configuring widgets. If the KNX voice interface is not correctly instructed on the relationship between command and feedback addresses, in fact, it cannot pre-compile the selection of these address pairs when creating a new widget.

The general settings on this tab are:

RULES COMBINATION	Options: ▪ All rules must be fulfilled (AND) ▪ At least one rule must be satisfied (OR)
COMBINATION OF NAME RULES	Options: ▪ All rules must be fulfilled (AND) ▪ At least one rule must be satisfied (OR)
COMBINATION OF ADDRESS RULES	Options: ▪ All rules must be fulfilled (AND) ▪ At least one rule must be satisfied (OR)
RULES BASED ON NAME	The following options are available: ▪ DELETE RULE ▪ ENABLE RULE ▪ KEYWORD COMMAND: example *command*, *cmd*. Keywords can be separated by comma or inserted as new rules ▪ MANDATORY ▪ POSITION (command rule): Start, End, Any ▪ KEYWORD STATUS: example status, feedback, st. As for the command, the different rules can be separated by comma or inserted as new rules ▪ POSITION (status rule): Start, End, Any
RULES BASED ON GROUP ADDRESS	The following options are available: ▪ DELETE RULE ▪ ENABLE RULE ▪ LEVEL: main group (X/-/-), intermediate group (-/X/-), group address (-/-/X) ▪ COMMAND ADDRESS: ▪ STATUS ADDRESS:

	▪ OFFSET:

It is possible to create two types of rules:

RULES BASED ON NAME	Status feedback is searched among objects whose name differs from the command for one or more keywords.
RULES BASED ON GROUP ADDRESS	Feedback is searched for based on the KNX address, which must be related to the respective command in some way.

Rules can be defined and not activated by unchecking the "ENABLE" selection box; in this case, their definition remains stored in the project, but is not used during import.

If several rules are defined (and activated), it is possible to decide whether they should work in OR or AND, using the appropriate options at the beginning "COMBINE RULES"; it is possible to establish an AND/OR criterion within the rules by name (if more than one), by address and cumulatively between the two types of rules, for maximum flexibility.

The name-based rules work like this: you can specify one or more words to be searched for in command objects and they will be removed to search for the corresponding status; if these words must necessarily be present, the "mandatory" option must be selected. Then you have to specify one or more words to be searched in the status objects, specifying (as in the case of keywords on commands) if they must be at the beginning, at the end or in any position of the ETS name.

The search automatically ignores a series of "special" characters:

- Space
- -
- _
- +
- ,
- ;
- .

The rules based on the address, on the other hand, provide first of all a filter on the command address; choosing "any" all is fine, otherwise it is possible to establish a filter on the command address (depending on the level - 1, 2 or 3 - of the KNX address on which the rule operates). The status address can be "any", "equal to command" or "offset on command", in the latter case a positive or negative offset must be chosen.

Some examples:

- equal name with "status" or "feedback" in addition (possibly replacing "command" or "cmd");
- KNX address shifted by 1 to intermediate address with the same "main group" and "address group" (the first and third address number, for example).

By combining more rules you can get more powerful filters, for example: if you have created a project where the states are shifted by 1 as an intermediate address and 10 as a group address, i.e.

0/0/1 -> 0/1/10

0/0/2 -> 0/1/11

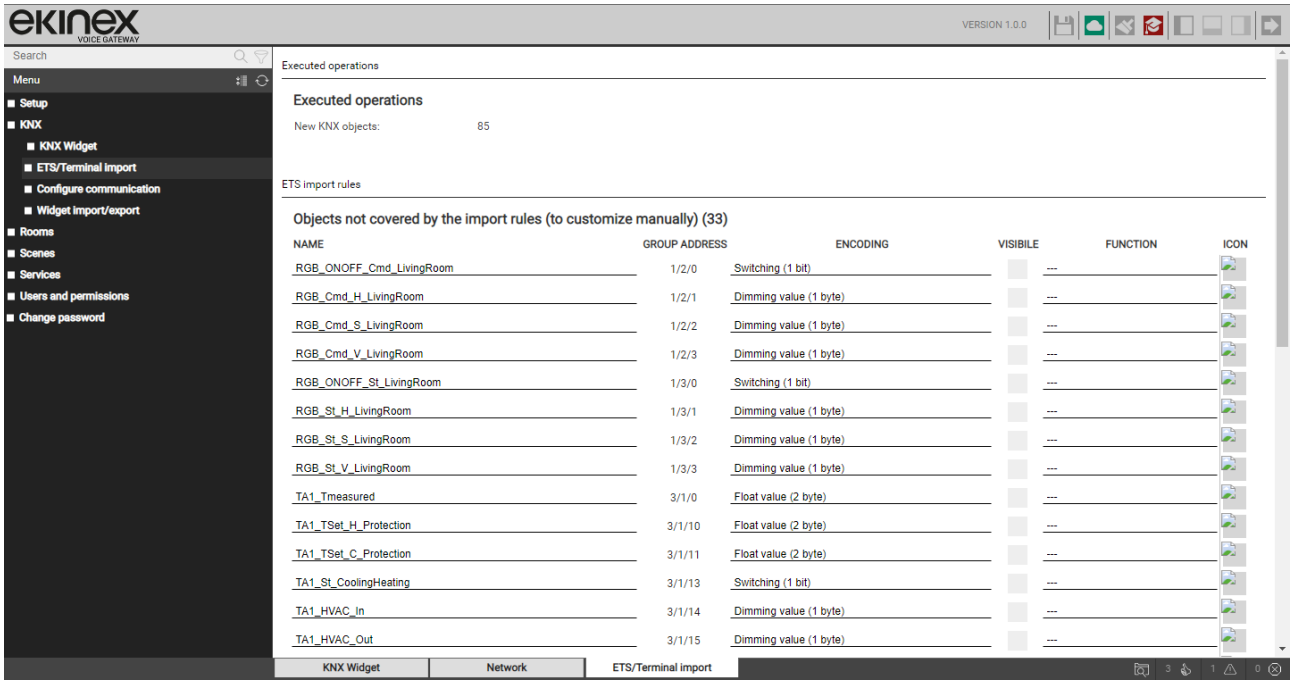
you can create two address type rules, putting AND as a combination.

7.1.3 Import: finalization

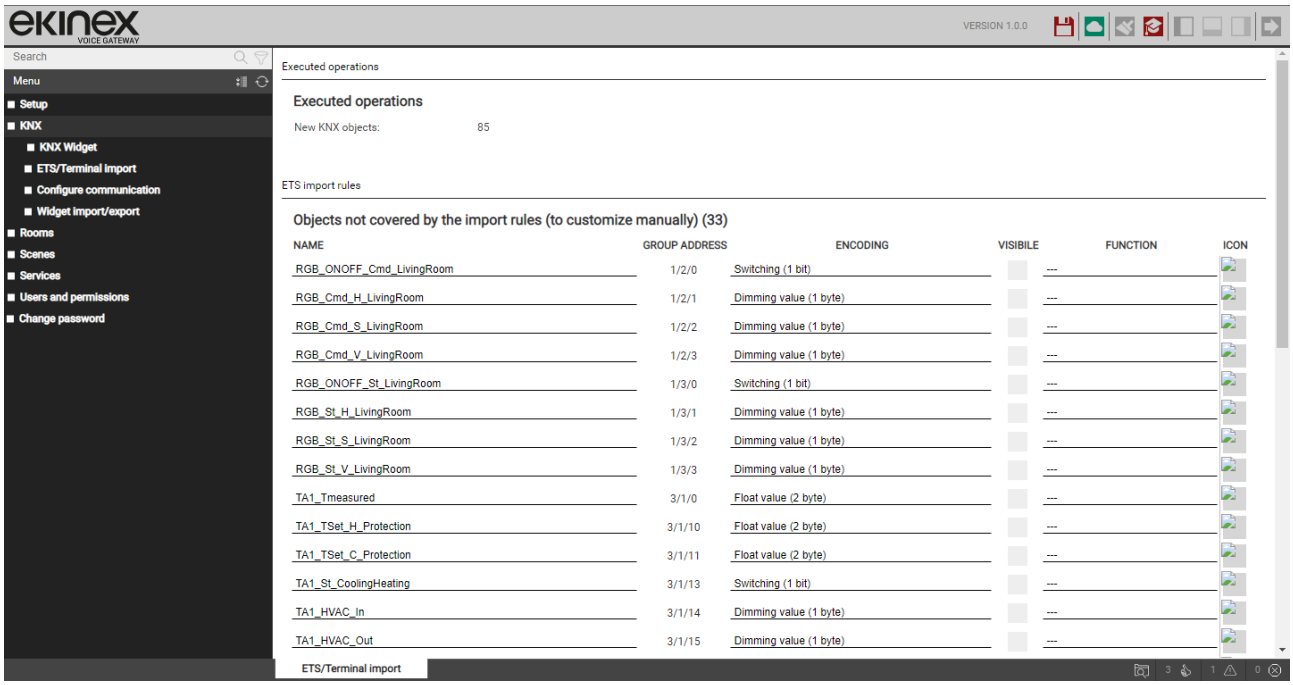
After specifying the import options, pressing the NEXT button will start the actual import. The following operations are performed during this procedure:

- For each of the KNX addresses present in the project, an entry is created in the side menu of the voice interface, which can then be used for drag&drop in the creation of the widgets. These items are also used to populate the address shortcut lists, as shown below
- Each KNX address is associated to a specific data encoding, category and pre-selection of the function performed, using for this purpose a list of preset ETS RULES. If an address does not respond to any of these rules, it must be customized at the end of the procedure.
- Possible relations between KNX group addresses are searched, in order to associate a command address to the corresponding status feedback, using the rules previously seen.

At the end of the import procedure, a detailed summary of all the status-command associations performed is proposed first, as exemplified in this screenshot:



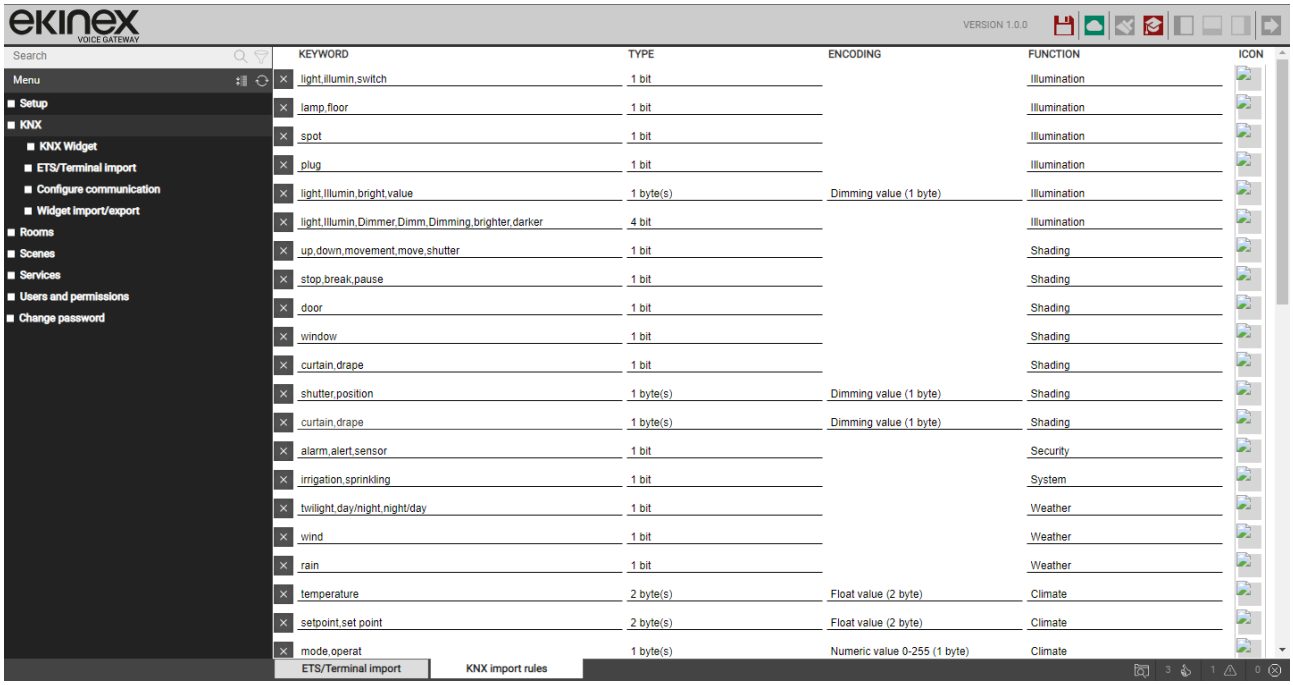
If the ETS project contains group addresses that do not comply with ETS rules, moreover, they are listed at the end of the import, in order to allow their customization before finishing the procedure:



It is possible to proceed in two ways:

- Configure the single address, choosing the exact encoding, the function of belonging (not mandatory) and the most appropriate icon to represent it
- In case of multiple addresses that could be managed with a rule, press CHANGE RULES and create an ad hoc ETS rule

In this second case, you can access the following page:



The rules look for one or more keywords within the group address names and automatically assign the correct data encoding (necessary for proper voice control) and the graphical appearance of the corresponding objects.

Each rule consists of the following informations:

KEY	One or more words (or pieces of words) to search within the names assigned in ETS to group addresses. To specify more than one word separate them with the comma; the space is searched within the ETS project, thus allowing a greater granularity in the composition of the rules
TYPE	Length (in bits/bytes) used in the KNX addresses to search within the ETS project
CODING	Type of coding to be used in the voice interface to correctly interpret the data in transit on the KNX bus (depends on the data length specified in the "TYPE" field)
FUNCTION	Category in which to insert the objects created by the voice interface during the import of KNX addresses that meet the search criteria of the ETS rule
ICON	Icon (or set of icons) to be used for the graphic representation of objects that meet the rule's search criteria

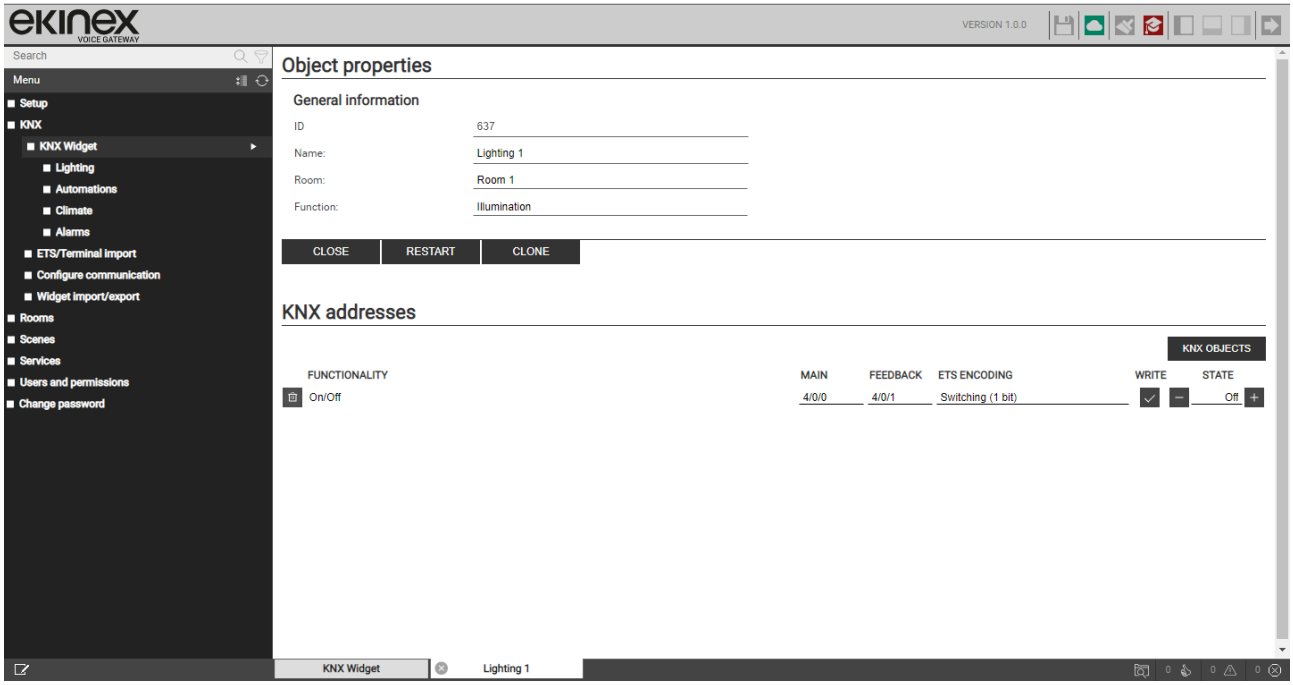
The rule must be interpreted in the following way: if the voice interface finds a group address that contains in the name at least one of the KEYWORDS specified in the rule, and that includes the data length specified as TYPE, adopts the CODE specified in the rule to write/read information on the KNX bus, automatically assigns the chosen FUNCTION and adopts the chosen ICON for the representation of the corresponding object.

Once the rules are integrated, return to the ETS import tab and press REPLACE RULES. Repeat the operation as many times as necessary, to manage the whole list of addresses present in the project; it is possible to leave unmapped KNX addresses from this list, but they may not be managed correctly in the following KNX widget configuration phases.

Press NEXT to complete the import procedure, at the end of which the page is reloaded; all the addresses present in the project are now available in the section

TECHNOLOGIES > KNX > ETS PROJECT

divided into the address levels provided in the project, ready to be used in the association to KNX widgets through drag&drop:



By selecting a menu item and pressing the corresponding editing shortcut, you can also access its tab, where you can edit (compared to what is done automatically by the import procedure and related ETS rules):

- Associated label
- Function (category) associated
- Associated Rendering, that is the set of rules that establishes the possible values, and the corresponding labels / icons representing the different states.

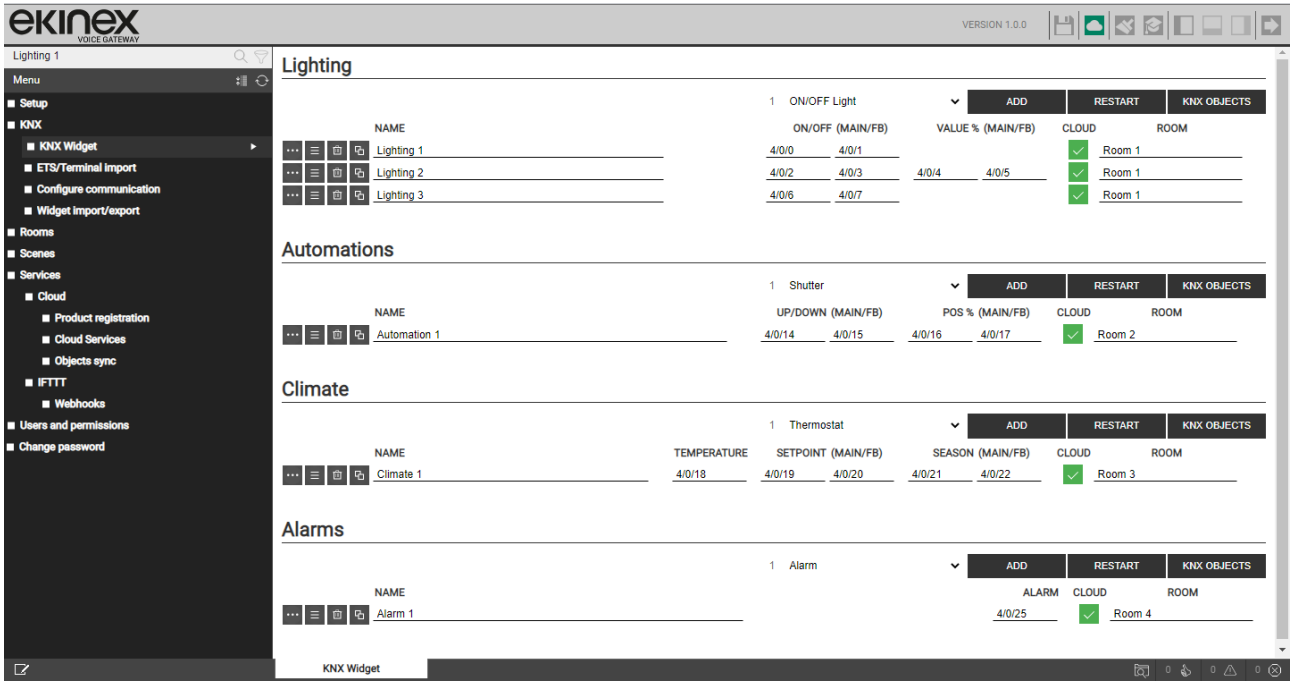
7.2 New widget

To create a widget, you need to create one or more components through the KNX page:

TECHNOLOGIES > KNX > KNX WIDGET

Inside there is a list of categories, initially empty, in which the components will be organized. In correspondence of each one, on the top right, there is a text field, in which to insert the number of components to be created, and a selector containing a list of templates (which represent the type of widgets, both in terms of sub-objects and graphic appearance).

By pressing the ADD button, the components of the chosen type are created, and queued to the list in the corresponding category:



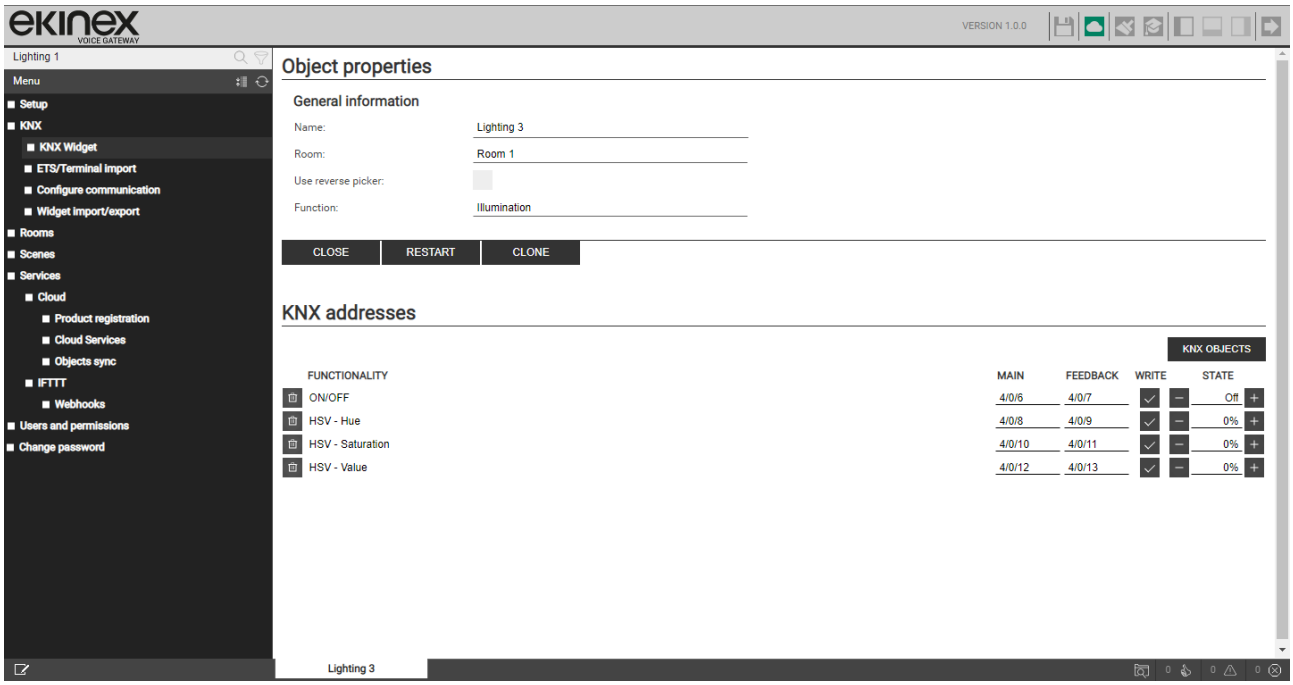
It is recommended to initially create only one widget of a certain type, and then duplicate it, as better highlighted below.

In the case of the simplest widgets, such as the ON/OFF lights or dimmer lights, it is possible to enter the KNX addresses directly in the list; where provided, it is possible to enter both the main address (MAIN) and any status feedback address (FB), all in X/Y/Z format.

The voice control interface does not perform a duplicate check of manually entered KNX addresses, as it may be useful to recall the same address in multiple widgets. Pay particular attention to the correctness of the entered addresses.

You can associate widgets to a previously configured room via the drop-down menu at the bottom of the line.

To configure the widget in more detail, access its tab using the MODIFY button at the beginning of the line (the "three dots" symbol):



The initial section contains general information about the widget:

NAME	Label used to identify the widget
ROOM	Widget room selector (optional)

The bottom section, vice versa, shows the complete list of KNX addresses that can be associated to the widget, according to the type chosen during the creation phase.

For each of them, the following information is available:

FUNCTIONALITY	It represents the "role" of the KNX address within the component. It cannot be modified, except in the case of generic components.
MAIN	Primary KNX address, on which the commands are sent (if writable)
FEEDBACK	Possible status KNX address, to be monitored to remain aligned with the status of the actuators. In case of read-only objects, indicate here the KNX address on which the voice interface expects to receive telegrams.
WRITE	Determines whether or not the address should be writable
STATE	Shows the real time status of the address and allows, if writable, to send test commands on the KNX bus

You can additionally specify the following when the ADVANCED mode is activated by means of the button at the top right of the toolbar:

ETS ENCODING	Type of data exchanged on the KNX bus at this address. It is recommended not to change the encoding from the suggested settings.

Once the KNX addresses have been assigned to the components, it is necessary to restart the communication services for them to become effective. This operation can be done with the RESTART button, available both in the list of components and in the detail tab.

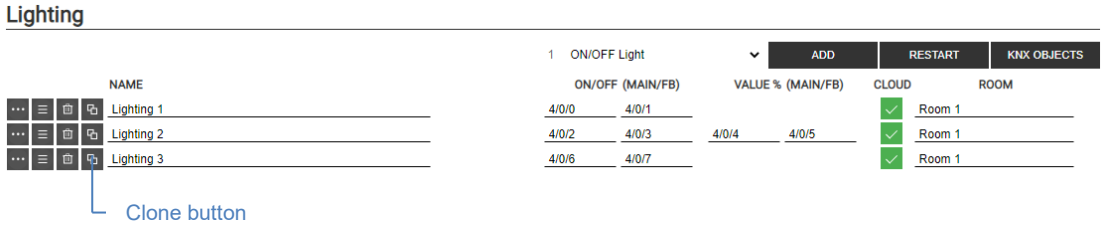
It is not necessary to restart the services at every change, but it is necessary to do it after a series of changes, or new component entries.

7.3 Cloning a widget

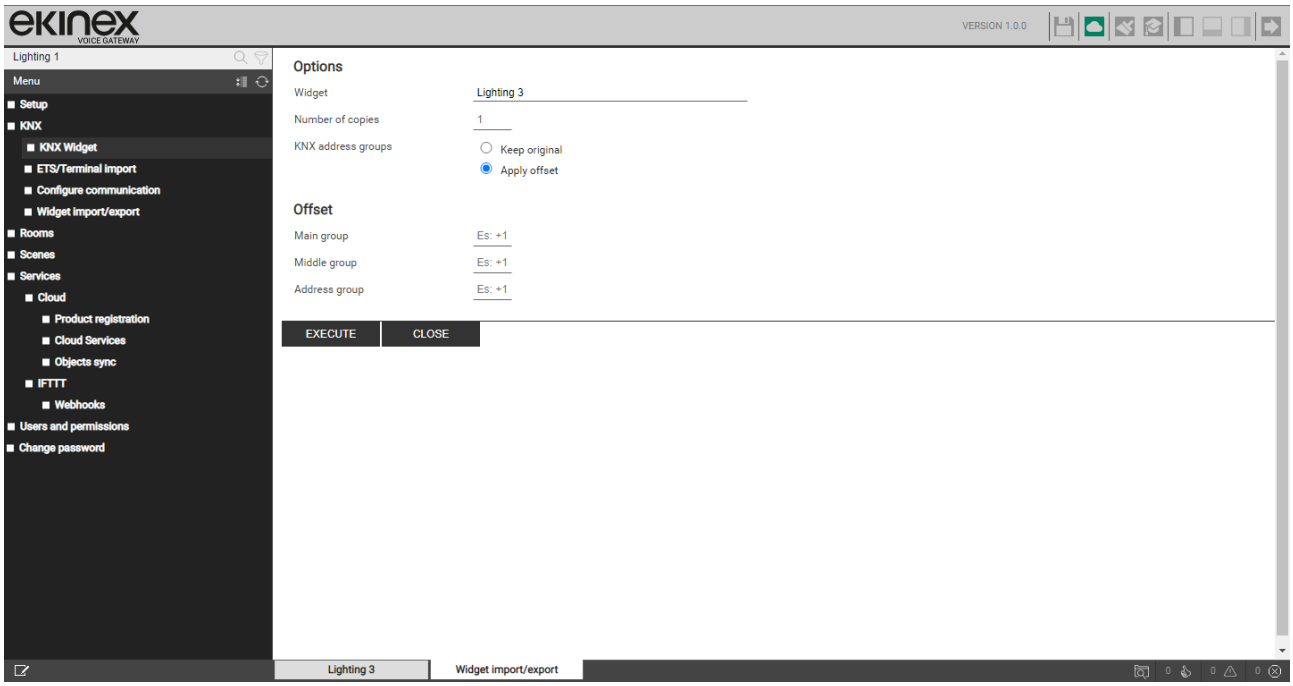
Once a component is completely configured, it is possible to duplicate it; this mode represents the fastest way to realize the project, thanks to the possibility - during duplication - to automatically increase the group addresses.

To duplicate a component, it is necessary to proceed in this way:

- Press the corresponding CLONE button in the list of widgets
- Press the CLONE button in its detail card



In both cases this window is opened:



You can specify the following:

NUMBER OF COPIES	Allows you to specify the number of components you want to create, starting from the chosen one

KNX ADDRESS GROUPS	If you select "keep original", identical copies of the original widget will be created. By selecting "apply offset" you can indicate an increment (offset), for each of the 3 numbers that make up the KNX addresses (main, intermediate and group address), to be applied for each of the duplicates. It is also possible to indicate negative values. By entering for example "1" or "+1" as offset on the group address, each KNX address present in the starting widget will be incremented by 1 on the last number, as many times as the required copies: 3/0/1 3/0/2 3/0/3 ...

Pressing the RUN button starts the duplication; after a few seconds, the widgets are available in the corresponding section of the WIDGET KNX page.

At this point, it is sufficient:

- Change the label for the new widgets
- Assign them to the target rooms (the duplicates are all inserted in the room of the source component, if available)

Even after a duplication operation, it is necessary to press the RETURN button so that the new addresses are correctly managed by the KNX voice interface.

It is not recommended to modify the ETS coding for the sub-objects of a widget, compared to the one proposed at the creation. If you change the encoding, the widget may not work properly.

7.4 Available widgets

The voice assistants allow you to manage a subset of the functions available in the KNX standard automation system. The types of widgets available are described in more detail below.

7.4.1 On/off light

They represent the simplest type of widget, and allow a light to be switched on and off. This type of widget provides the following functions:

FUNCTIONALITY	ETS ENCODING	NOTES
On/Off	Switch (1 bit DPT 1)	Switching on/off

7.4.2 Dimmer light

The dimmer type widget provides two sub-objects, for switching the light ON/OFF and for its percentage adjustment:

FUNCTIONALITY	ETS ENCODING	NOTES
Generic (On/Off)	Switch (1 bit DPT 1)	Switching on/off
Brightness value	Dimming value (1 byte DPT 5)	Percentage value

7.4.3 RGB light

It is possible to control an RGB controller by controlling its HUE (colour), SATURATION (saturation) and VALUE (percentage intensity) components, in addition to the ON/OFF command:

FUNCTIONALITY	ETS ENCODING	NOTES
ON/OFF	Switch (1 bit DPT 1)	If present, switch the light on or off
HSV - Hue	Dimming value (1 byte DPT 5)	Colour identifier, expressed as a percentage
HSV - Saturation	Dimming value (1 byte DPT 5)	Colour saturation component 100% → full colour 0% → white
HSV - Value	Dimming value (1 byte DPT 5)	Light intensity

7.4.4 Automations

This widget allows the control of an actuator for rolling shutters, curtains and general motors through its percentage position and/or open/close command:

FUNCTIONALITY	ETS ENCODING	NOTES
Movement (Up/Down)	ON/OFF (1 bit DPT 1)	Typical convention: 1 → lower / close 0 → lift / open
Percent value	Dimming value (1 byte DPT 5)	Typical convention: 0% → fully raised / open 100% → fully lowered / closed

7.4.5 Room thermostat

This type of widget allows the control of the thermoregulation of a climate zone, through the following functions:

FUNCTIONALITY	ETS ENCODING	NOTES
Measured temperature	Floating point (2 byte DPT 9)	
Base setpoint	Floating point (2 byte DPT 9)	If the thermostat can be controlled by means of operating modes and relative setpoints, leave the control address empty and enter only the current setpoint as FEEDBACK. Conversely, if the basic / current setpoint is writable on the thermostat, indicate the corresponding group address as MAIN
Heating/Cooling	Switching (1 bit DPT 1)	Convention: 0 → conditioning (summer) 1 → heating (winter) Note: in the absence of this address, the thermostat is considered in heating only mode
Heating (ON/OFF) Cooling (ON/OFF)	Switching (1 bit DPT 1)	Heating or air conditioning request status; read only. If the thermostat controls a single output in both seasons, enter the same KNX address in both lines.

7.4.6 Alarm

This type of widget allows you to monitor an ON/OFF alarm in read-only mode.

FUNCTIONALITY	ETS ENCODING	NOTES
Alarm	Switching (1 bit DPT 1)	Typical convention: 1 → alarm 0 → ok

7.5 Configure communication

It is possible to specify the general operating settings for KNX communication by accessing the KNX → CONFIGURE COMMUNICATION page.

It is possible to set:

PHYSICAL ADDRESS	Physical address with the KNX interface for voice control communicates with the KNX bus by entering it in the appropriate field; the address must be specified in the X.Y.Z form respecting the limits imposed by the KNX protocol: First number between 0 and 15 Second number between 0 and 15 Third number between 0 and 255
ROUTING COUNTER	Routing counter of the telegrams issued by the KNX interface for voice control. Default value: 6

7.6 Import/Export widget

Through this page it is possible to export a KNX widget of the project in CSV format, in order to re-use it in other projects. For this purpose:

- Select "export" as operation
- Select the widget from the drop-down menu
- Press the RUN button

After a few seconds, the CSV file containing the widget information is downloaded from the browser to your PC.

To subsequently import this widget into the same project, or into another project, proceed as follows:

- Choose "import" as operation
- Load the CSV file using the browse button
- Enter the number of copies of the widget to create
- Determine whether the original KNX addresses should be retained, or whether they should be increased by an offset
- Press RUN

At the end of the operation, the new widgets are listed on the KNX > WIDGET KNX page in their category.

8 Scenarios

The KNX interface for voice control allows you to create customised command sequences, even interspersed with timings, which can then be called up by voice assistants.

The scenarios of the KNX interface for voice control should not be confused with the ROUTINE provided by ALEXA or GOOGLE.

The ROUTINE are procedures that can be configured directly from the respective apps and can also involve events or devices different from the KNX system; the SCENARI, on the other hand, are sequences managed directly from the KNX interface for voice control, which can be called up by voice, or used inside the ROUTINE as a "shortcut" to avoid having to insert individual commands.

8.1 Creation of new scene

To create a new scenario in the configuration environment, proceed as follows:

- Access the voice control interface CONFIGURATION environment
- Select SCENES from the navigation menu
- Press the "ADD" button to create a new scenario

The new scenario is available in the (initially empty) list of scenarios; by subsequently accessing its card you can associate a label (which will be used to recall it).

By pressing on the title of the section "ACTIONS PERFORMED BY THE SCENARIO" the complete list of commands that can be inserted is loaded in the SEARCH section:

- All the KNX addresses associated to the widgets, marked as writeble (WRITE)
- A series of WAIT objects (called WAIT) that allow you to delay the execution of commands for a certain time

Select one or more items from the search and drag them into the list, taking care to insert them in the desired order; for each one (if available) also specify the desired VALUE.

9 Cloud services

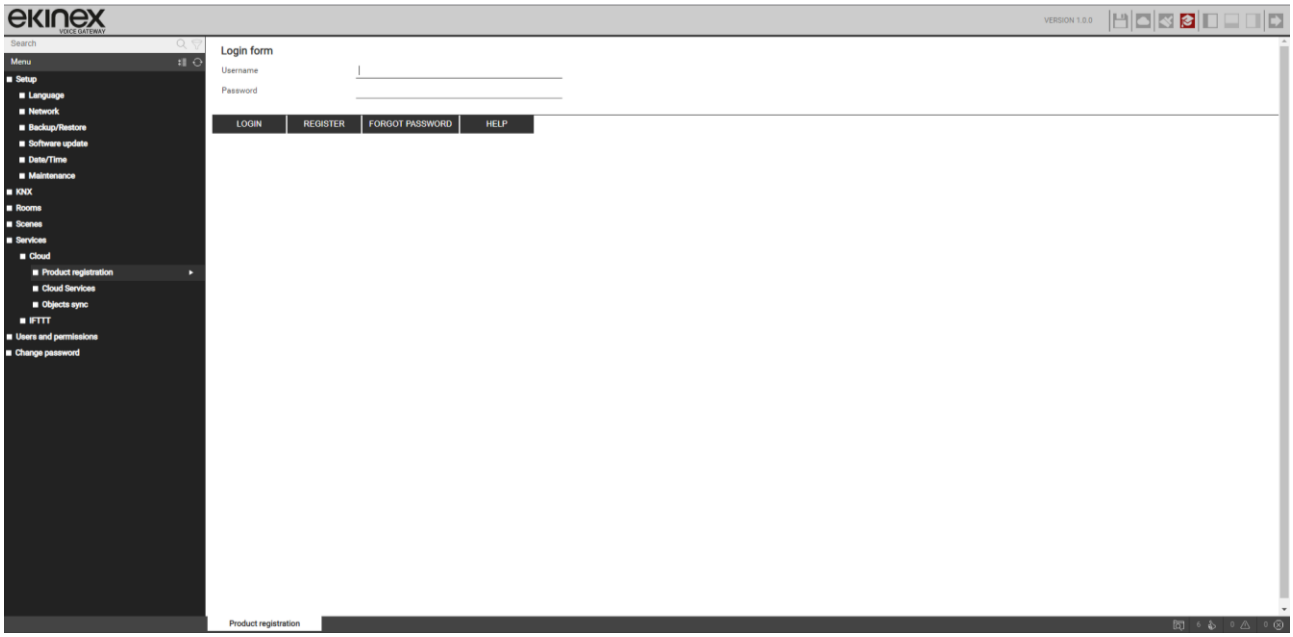
9.1 Registration

The KNX interface for voice control must be registered on the ekinex cloud in order to operate.

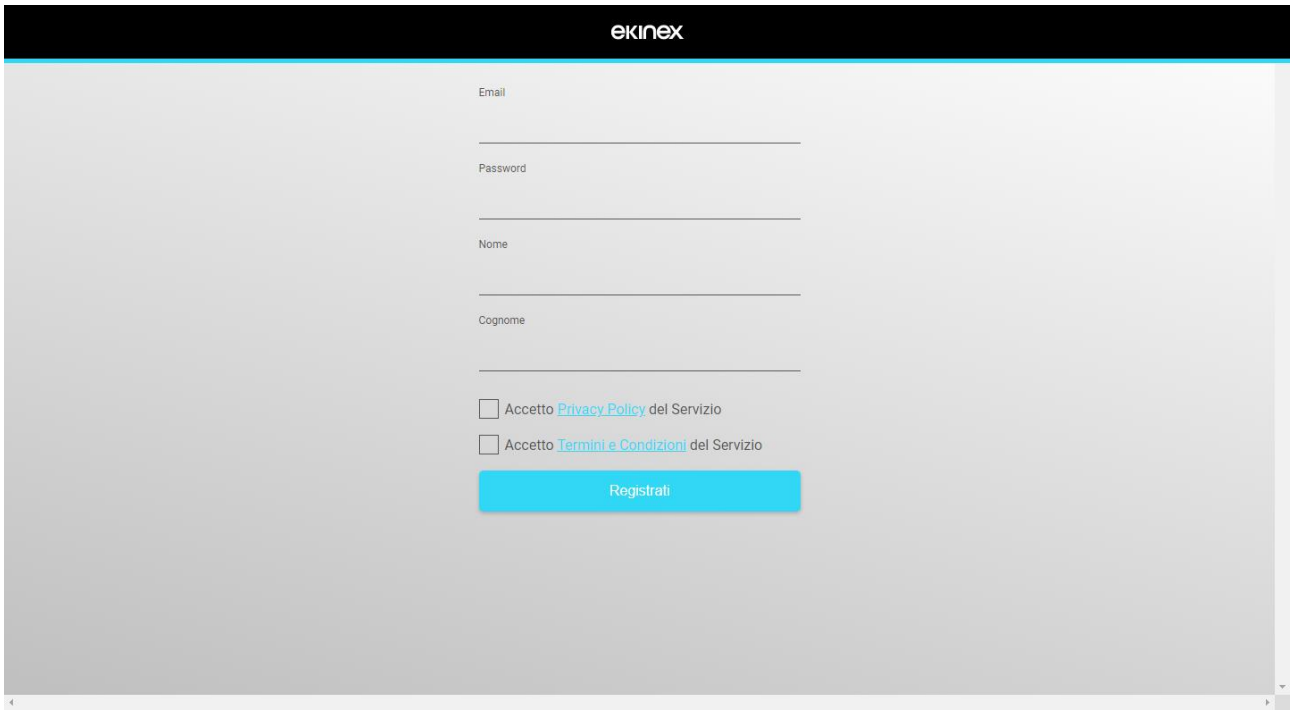
The first step is to create a free account on the cloud, if you don't already have one. By pressing the cloud icon in the top toolbar, or accessing the administration menu item

SERVICES > CLOUD > PRODUCT REGISTRATION

you can enter your cloud credentials, if already available.



... or, by pressing the REGISTER button, create a new account on the fly:



Once you have entered your credentials, you can associate the current user, with whom you entered the interface, to your cloud account. You can choose two types of association:

OWNER	You will have full rights to the voice control interface and full management of services associated with the cloud. You can also control interface functions through cloud services and voice assistants.
INSTALLER	You will be associated with the voice control interface as installation and configuration engineer. You will not be able to control objects via voice assistants and the cloud.

By pressing the corresponding button, you match the current user of the voice interface to the cloud account entered; after a few seconds, a summary screen is shown.

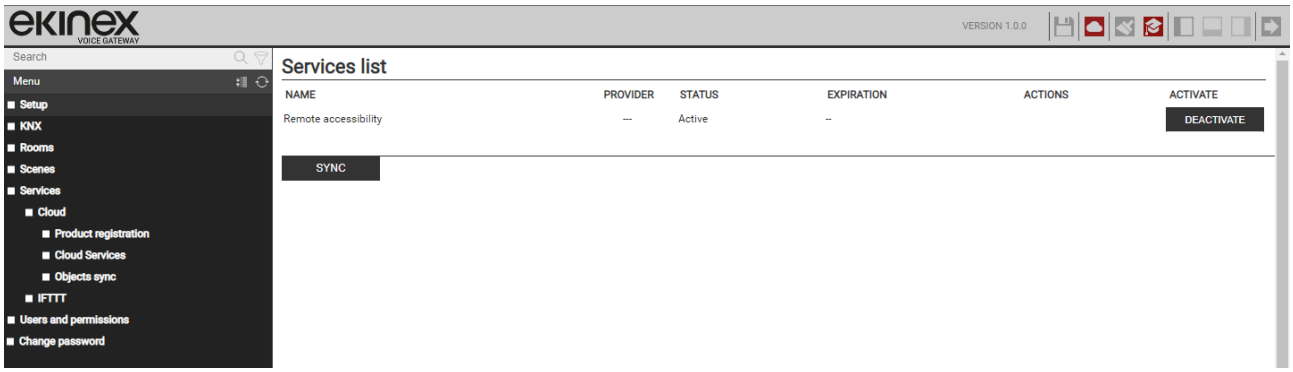
At this point you can access the following sections:

CLOUD SERVICES	Allows you to enable cloud-based services on the server, such as remote access without opening ports on the router
OBJECTS SYNC	Allows you to record widgets on the cloud, so you can control them through external services, such as Alexa and Google voice assistants

9.2 Remote access

The CLOUD SERVICES page allows you to activate the remote control service, which allows you to access the KNX interface for voice control without opening IP ports on your home router.

By pressing the service activation button, a request is made to the cloud, which after a few seconds sends a confirmation email to the requester (the same email with which you accessed the cloud section).



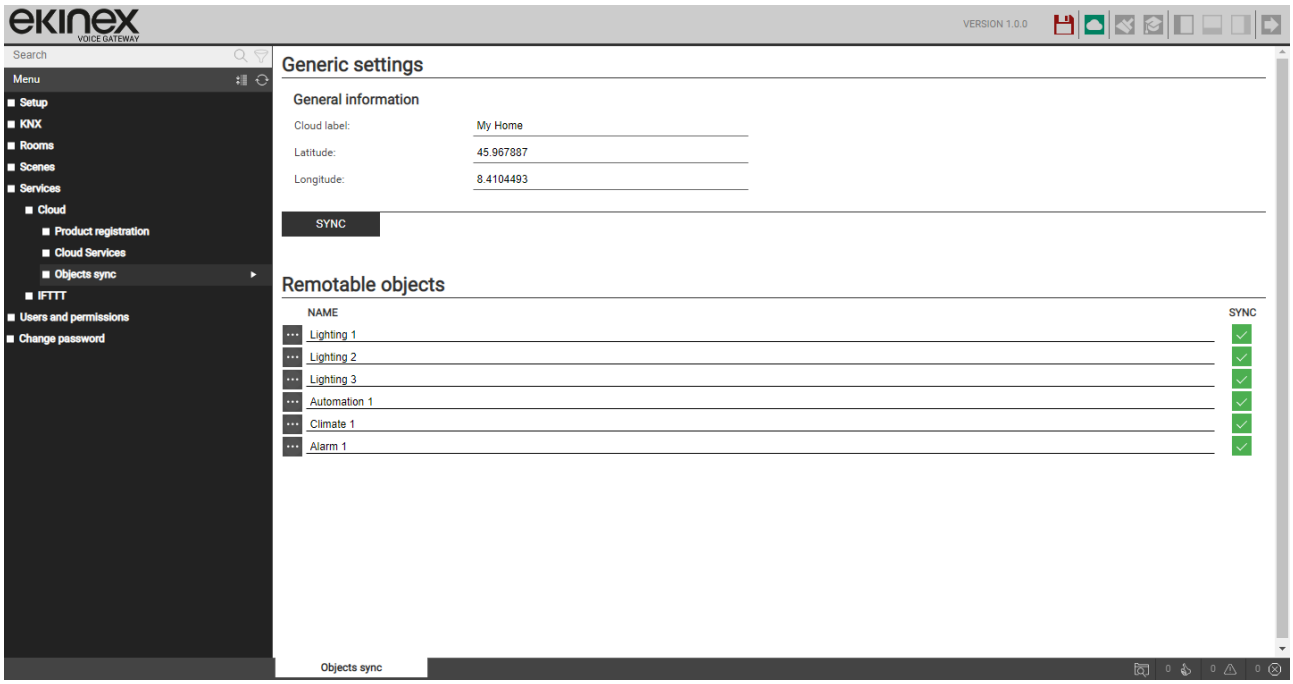
Even if you associate multiple voice control interface users with as many cloud accounts, you only need to activate remote access once; once active, it makes the interface available for access from outside, regardless of the user who then physically logs in.

The KNX voice control interface exchanges information with the ekinex cloud using port 5223. This is no problem for home routers that have all outgoing ports open. When using the interface in a network with a firewall also outgoing (e.g. corporate network), port 5223 must be open outgoing only for the IP address assigned to the voice interface.

9.3 Cloud synchronization

Through this section you can synchronize KNX widgets and scenarios with voice assistants.

First, you should identify your KNX voice control interface with a label and the coordinates of where it is installed (optional):



This information is not strictly necessary, but allows for easier identification of the server in the cloud. Whenever you make any changes, you must press the SYNCHRONIZE button.

The section below summarises all the KNX widgets and scenarios configured; the sync indicator is orange to indicate that the configuration is not yet aligned with the cloud. It is also possible to de-select an item, so as not to synchronise it with the cloud (even temporarily).

By pressing the SYNC button, all objects are marked in green until a new change to their configuration occurs; in the latter case, it will be necessary to synchronize again. The status of the cloud indicator in the toolbar - green or red - indicates whether or not there are objects to be synchronized.

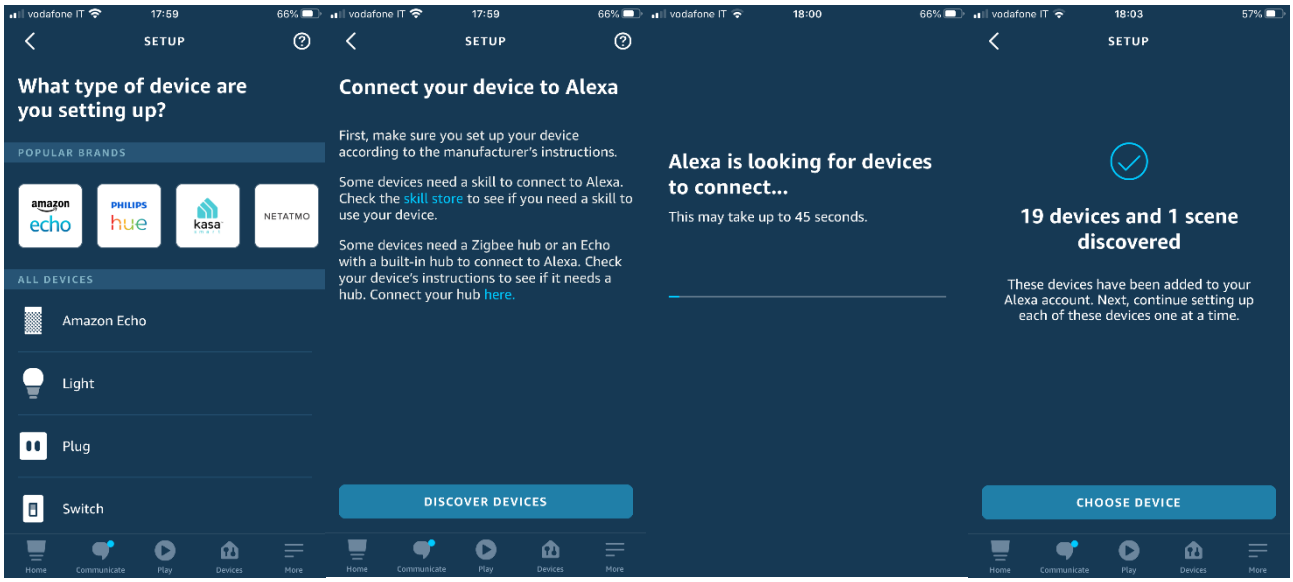
If an object continues to be orange at the end of a synchronization, it is necessary to check its configuration; for example, the minimum number of sub-objects necessary for its correct management via cloud may be missing.

9.4 Amazon Alexa voice control

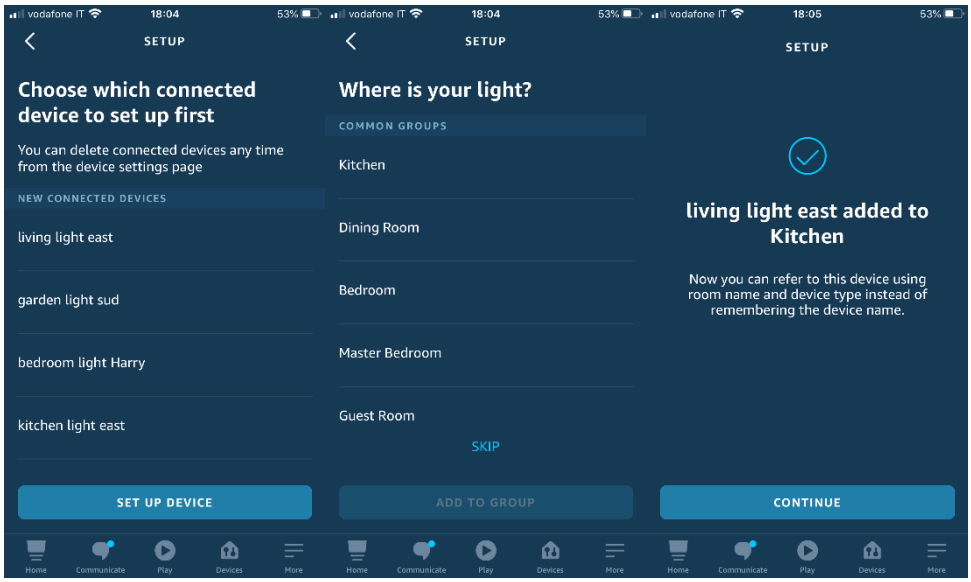
Once the widgets have been correctly synchronised, you can control them via the Alexa and Google Assistant voice assistants, by managing the smart home of the respective systems ("Alexa" app in the case of Amazon, "Home" app for Google). This chapter specifically describes the procedure with ALEXA.

As a first step, you need to activate the EKINEX skill within the Alexa app; during the procedure, you will be asked to associate your account on the cloud (with which the procedure described above has been carried out).

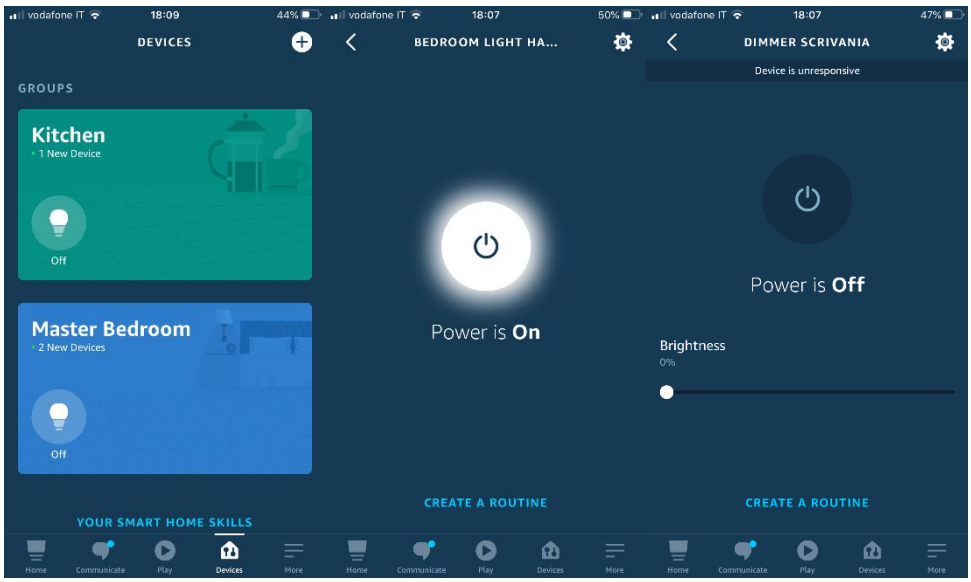
At this point you need to launch a scan to search for new devices by pressing the + button and choosing OTHER as device type:



Once the procedure is finished, for each of the devices, you can make an association with a group, to identify it more easily (and be able to make group commands, or refer to it by voice with the name of the group):



At this point, you can control the new functions with your voice, or with the graphics in the Alexa app:



For a list of specific keywords, please refer to Alexa's and Google Assistant's documentation; here are some examples of more common requests:

Alexa, turn on the light in the kitchen

Alexa, set the light in the living room to 70%

Alexa, increase the light in the room by 20%.

Alexa, tell me the temperature in the living room

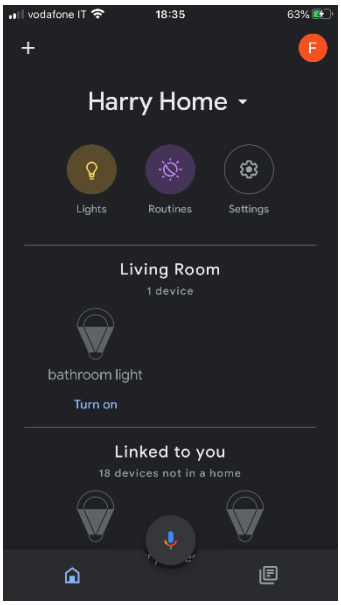
Alexa, set the temperature in the kitchen to 21 degrees

Alexa, run turn everything off

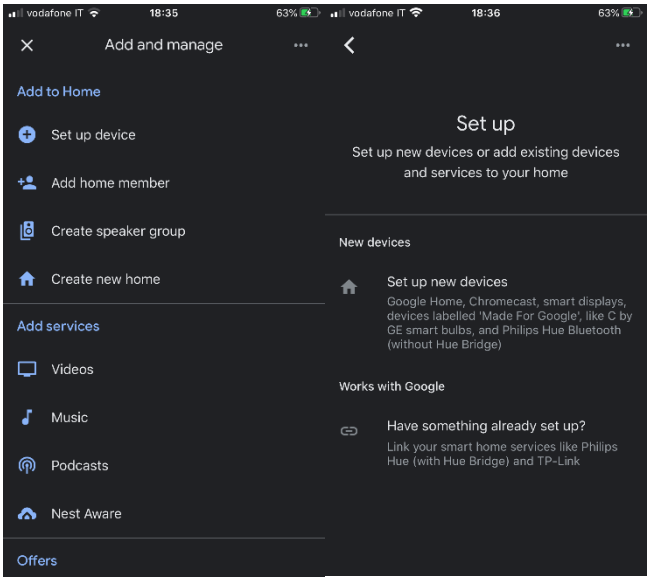
9.5 Google Assistant voice control

The procedure with the Google assistant is similar to that seen for ALEXA.

You first need to install the HOME app and configure a HOUSE by following the on-screen instructions. Presumably, there will already be devices inside it, such as the GOOGLE HOME or GOOGLE HOME MINI voice assistants, or a smart TV.

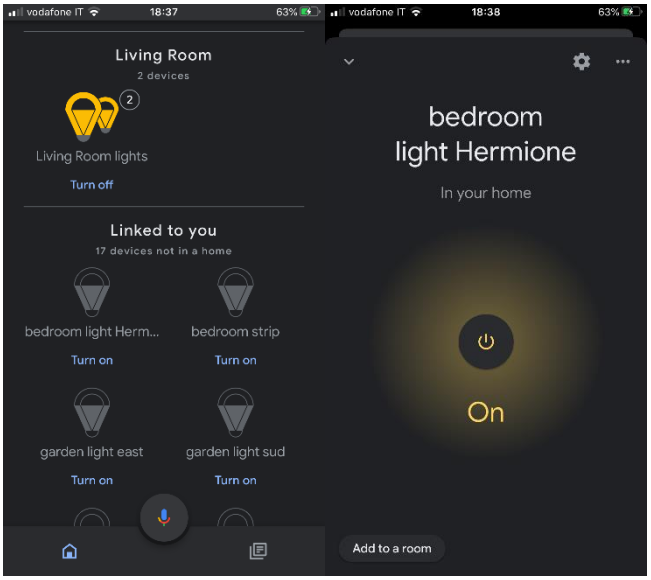


Press the + button at the top left to add, and choose DEVICE CONFIGURE, then the second item "HAVE YOU ALREADY CONFIGURED ANYTHING?



At this point, the first time a list of available services is proposed; choose EKINEX and enter, when required, your cloud credentials (the same inserted in the KNX interface for voice control) agreeing to all the proposed flags.

At the end of the procedure, the devices inserted in the interface are proposed; unlike ALEXA, if they have been previously associated with rooms inside the server, they are already catalogued in the same way:



Again, the app's graphics allow you to view and test the different features, in parallel with the voice commands. Some examples of useful phrases for controlling the KNX system with Google:

Hey Google, turn on the light in the kitchen

Ok Google, set the chandelier in the living room to 60%.

Hey Google, tell me the temperature in the kitchen

Hey Google, set the temperature in the bedroom to 21°.

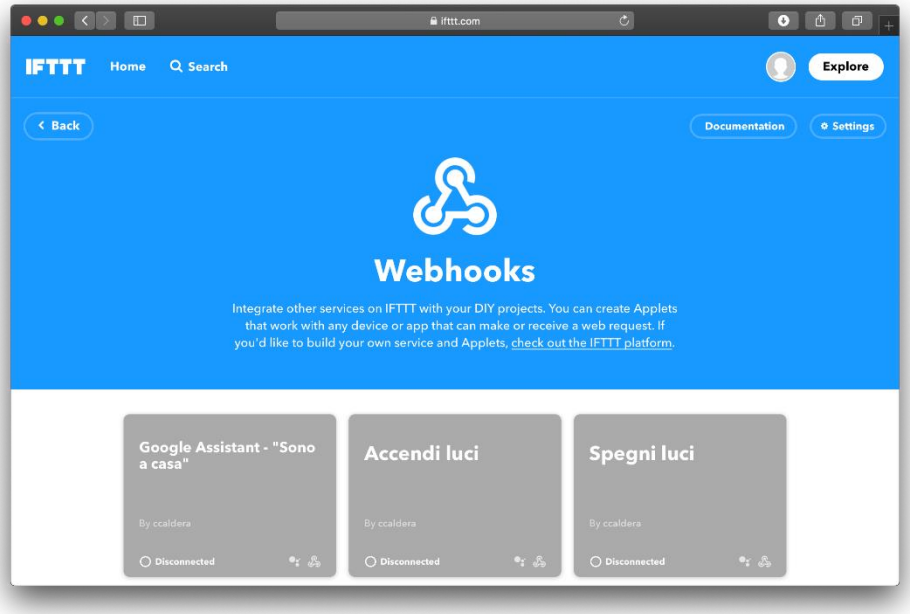
Ok Google, open the kitchen roller shutter 50%.

9.6 IFTTT

The KNX voice interface is compatible with the IFTTT cloud platform, which allows for free creation of association rules between compatible devices and services (called "applets" or "recipes") according to the following logic

if this then that

hence the acronym IFTTT. To use this service, you must first register for free on ifttt.com and then associate your account with the "webhooks" service:

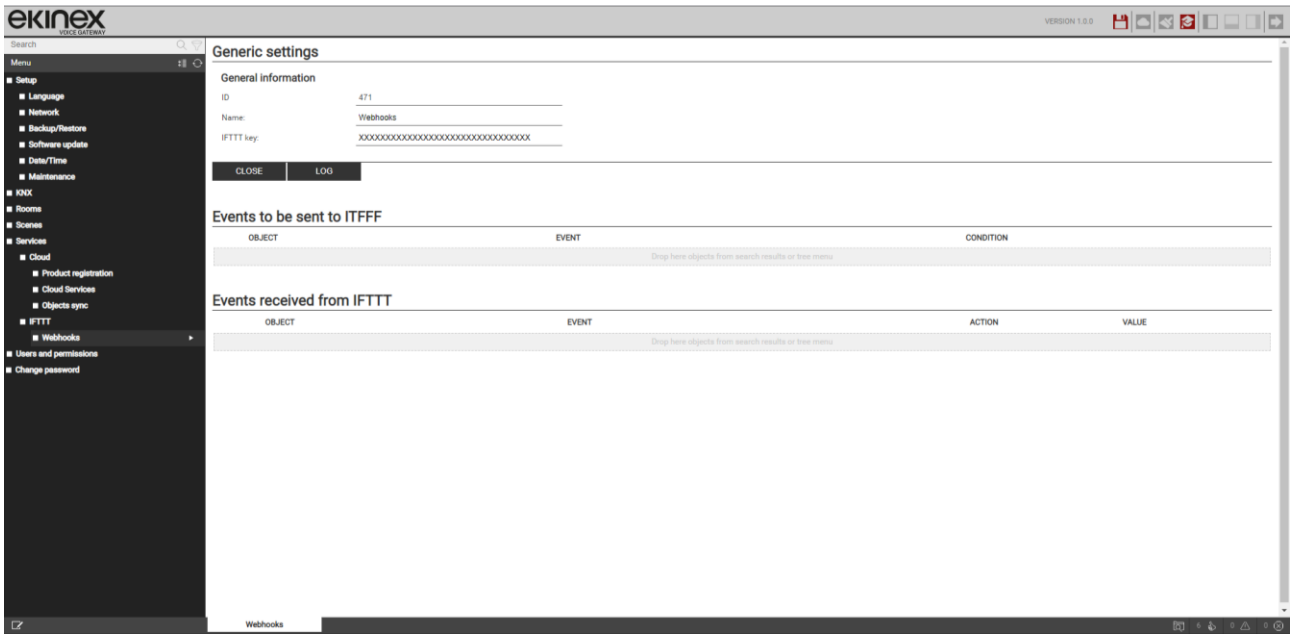


The "documentation" page displays your personal API key, which must be pasted into the page

SERVICES > IFTTT > WEBHOOKS

of the voice interface.

To recall an applet when the status of a widget changes, you must drag it from the side menu, or from the search engine, in the "EVENTS TO BE SENT TO IFTTT" section. In the case of composite graphic components it is necessary to drag the sub-object whose change of state must determine the event, searching for it in the search engine:



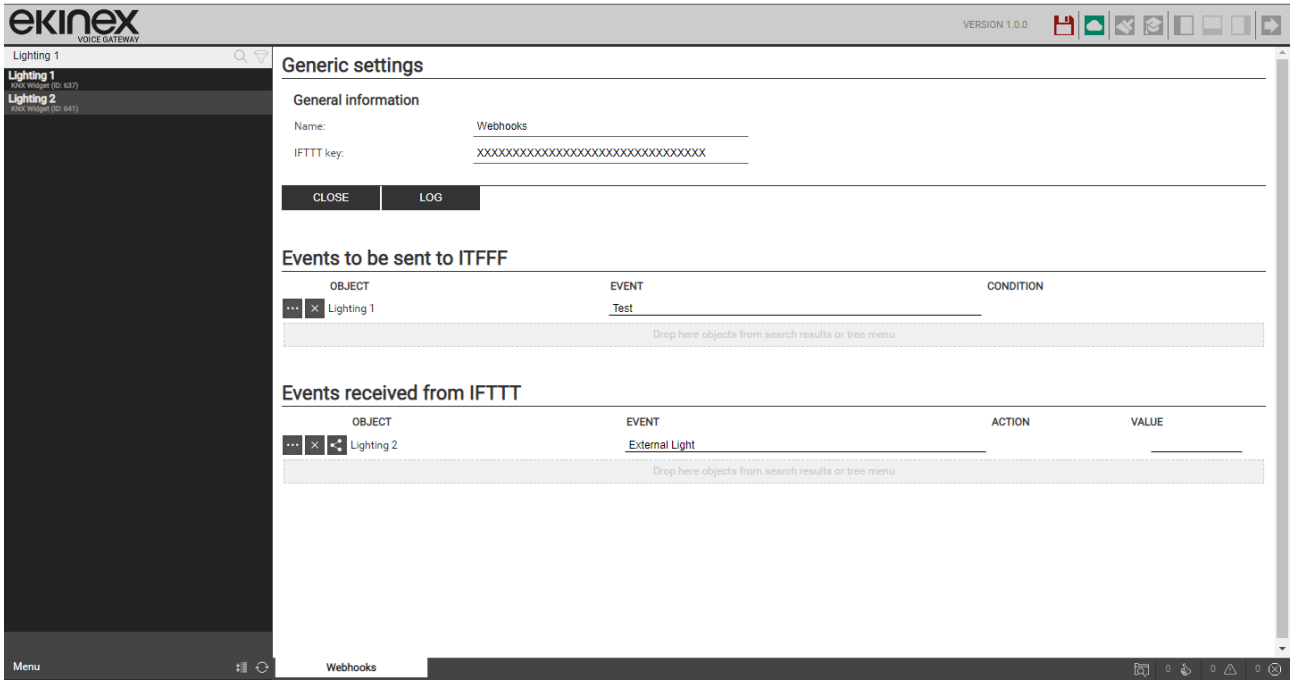
For each object that is dragged, it is necessary to indicate the name of the IFTTT event to be called; this information is requested in IFTTT when creating an "applet" with webhooks as a starting point. Finally, it is

necessary to specify for which value of the dragged object, the IFTTT event must be called (in the case of "always", it will be called at each value change).

In IFTTT, you create an applet by choosing "webhooks" as the starting service, pressing on the keyword "this", and enter the event name specified in the voice interface. As action ("that") you can choose any other service or device, keeping in mind that the interface passes to IFTTT, during the call, the following parameters (usable in the creation of the applet, depending on which service is chosen as destination):

Value1	ID of the object that recalled the event
Value2	Name of the object that recalled the event
Value 3	Value (in numerical format) of the object in the moment in which it has recalled the event

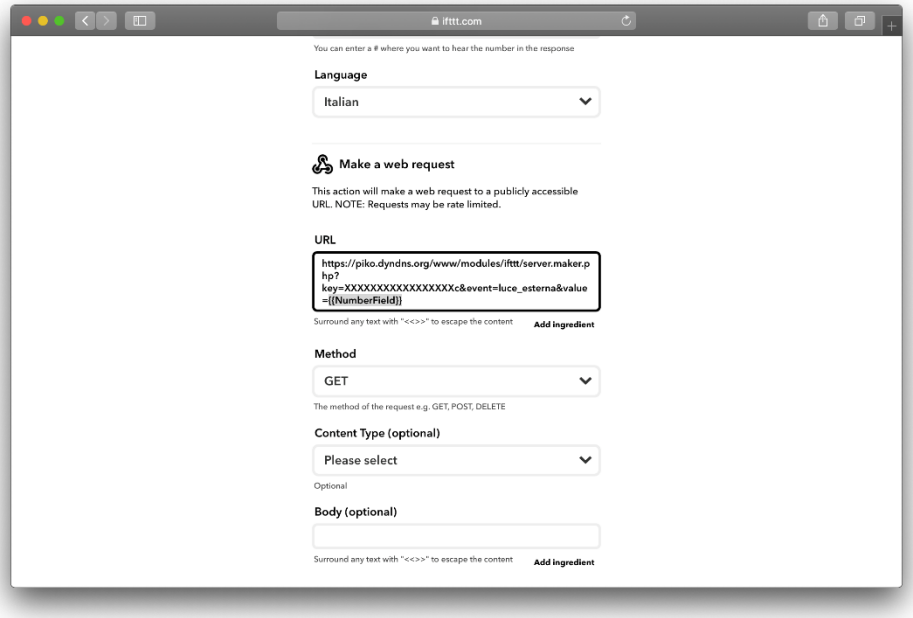
Conversely, you can call a command on the voice interface as an action performed by an applet, starting from an event that occurred on another service or device. In this case, the objects must be dragged into the "EVENTS RECEIVED FROM IFTTT" section.



You must also specify an event name, and the action + value to be sent to the object when called by IFTTT. If you choose "current value", the value will be passed to the URL called by IFTTT.

By pressing the link button at an object, a dialog box is displayed, in which you can copy the URL, to be inserted in IFTTT. The voice interface must first be configured to be accessible remotely via cloud service.

When creating the applet in IFTTT, after having chosen the starting service, by pressing "that" and choosing "webhooks" as the service, you will be asked to paste the previous address; inside it, if necessary, you can replace fixed values with "ingredients" derived from the starting event, in order to make the call dynamic



according to the cause:
Two tools can be used to monitor the correct functioning of the rules in both directions:

- the LOG button in the interface, which shows a series of messages collected in the server during the communication with IFTTT
- the "activity" section in IFTTT, which records all the events of the service

10 Users and permissions

10.1 New user

It is possible to create more users in the following way:

- Select the item USERS AND PERMISSIONS → USERS
- Press the "ADD" button and access the tab of the newly created object

The user tab allows you to set the following properties:

NAME	Label with which the user is identified (not used to log in)
USERNAME	Name used to access the system - Must be composed of alphanumeric characters without spaces or special characters
PASSWORD	Keyword to access the system - Must be composed of alphanumeric characters without spaces

The different users can each be associated to a different EKINEX cloud account and consequently to different ALEXA / GOOGLE accounts, which can all operate at the same time. To this end, carry out for each user the CLOUD association procedure described above.

10.2 Predefined passwords

It is essential that the default password for all users pre-installed in the KNX voice control interface is changed, so that access is secure, especially if there is a remote connection.

The voice control interface displays an error message when logging in to administration if the password has not been changed for at least one of the default users.

10.3 Change password

To change the ADMIN user password, proceed as follows:

- Select the item CHANGE PASSWORD
- Modify the USERNAME if necessary (taking care not to use special characters or spaces)
- Enter your new password twice

11 Warnings

- Installation, electrical connection, configuration and commissioning of the device can only be carried outby qualified personnel in compliance with the applicable technical standards and laws of the respective countries
- Opening the housing of the device causes the immediate end of the warranty period
- In case of tampering, the compliance with the essential requirements of the applicable directives, for which the device has been certified, is no longer guaranteed
- ekinex® KNX defective devices must be returned to the manufacturer at the following address:

Ekinex S.p.A. Via Novara 37, 28010 Vaprio d'Agogna (NO), Italy

12 Other information

- The instruction sheet must be delivered to the end customer with the project documentation
- For further information on the product, please contactthe ekinex® technical support at the e-mail address: support@ekinex.com or visit the website www.ekinex.com
- Each ekinex® device has a unique serial number onthe label. The serial number can be used by installersor system integrators for documentation purposes and has to be added in each communication addressed to the Ekinex technical support in case of malfunctioning of the device
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