CASE STUDY

iRidium Server Integration

Description

In this document it is explained the steps to follow to integrate iRidium Home Server in a Meet installation

V3

INDEX

INTRODUCTION

The door stations of the Meet system can operate in standard SIP mode, which gives them compatibility with systems from many manufacturers. In this case we are going to see how the call from the MEET entrance panel can be sent to the Iridi i3KNX application (i3Pro by extension). Both the MEET outdoor panel and the Iridi app can operate in SIP server mode (via a SIP server), which simplifies installation and configuration.

On the other hand, third-party applications can be loaded onto the WIT monitor to manage the home automation installations from it. In this case, the i3KNX (i3Pro) application can be loaded to manage the home automation system as if it were from the Iridi touch screen.

This document explains how to configure the MEET board and the Iridi KNX Home Server (UMC-C3) in order to implement:
1. Call from the MEET panel via the Fermax SIP server to the Iridi i3KNX app.
2. Controlling an iRidi installation via MEET WIT monitors, using i3KNX visualisation

In the case of using an Iridi server other than the KNX Home Server, it is necessary to use the i3Pro app and use Iridi Studio to configure the call of the outdoor panel. The parameters are the same as those shown in the KNX Home Server.

MATERIAL

Any Fermax MEET outdoor panel can be used for this integration as they all support SIP protocol. In the case of a single-family home, the MILO panel with one line (single pushbutton) will be used. In the case of a building (MDU), the MILO panel can be used or, if an electronic directory is required, the KIN or MARINE panel.

- Ref. 14831-14833. Monitor WIT 10'' Android 10 (optional)
- Ref. 95411. NEO/WIT Monitor Connector (optional)
- Ref. 9533. MEET MILO one way panel (in case of building choose a digital panel)
- Ref. 1586. Switch 4 PoE ports
- Ref. 1496 MEET ME call forwarding licence (if WIT monitor is not used)
- iRidi KNX Home Server (optionally another model can be used with the i3Pro app)
- Smartphone with i3KNX installed

BASIC SCHEME

Note: The IP addresses shown below are examples. They should be assigned depending on the router address of the installation and address availability.
   a) Single-family installation

SINGLE HOUSE
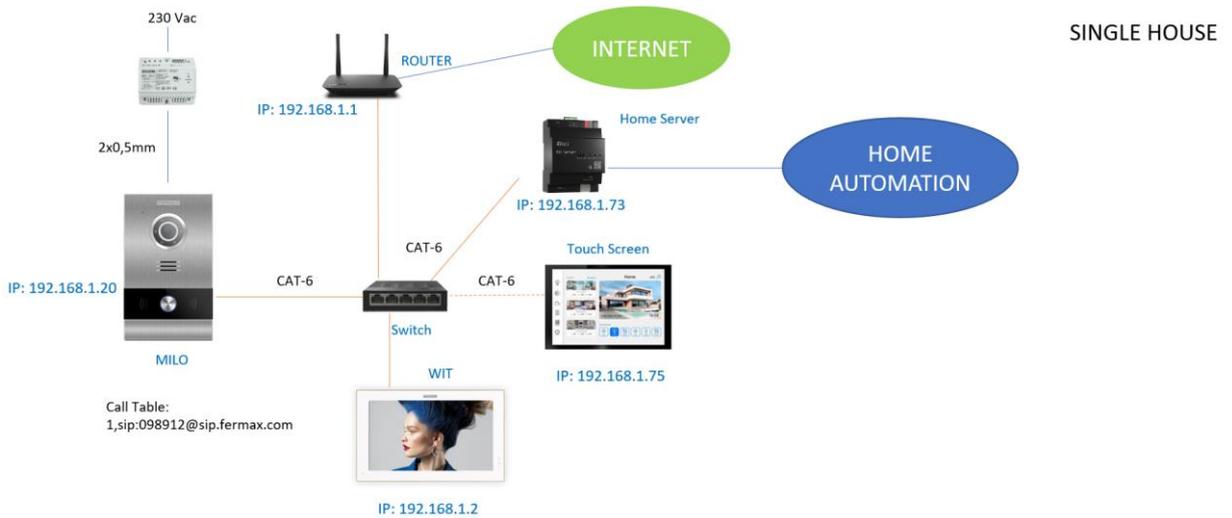
*The WIT monitor is optional, but ensures the operation of the call from the entrance panel in case of internet connection failure and includes the call forwarding licence required to call the Iridi display and the i3KNX app.

b) Building installation (MDU)
   a. Without Fermax monitors.

MDU SCENARIO A
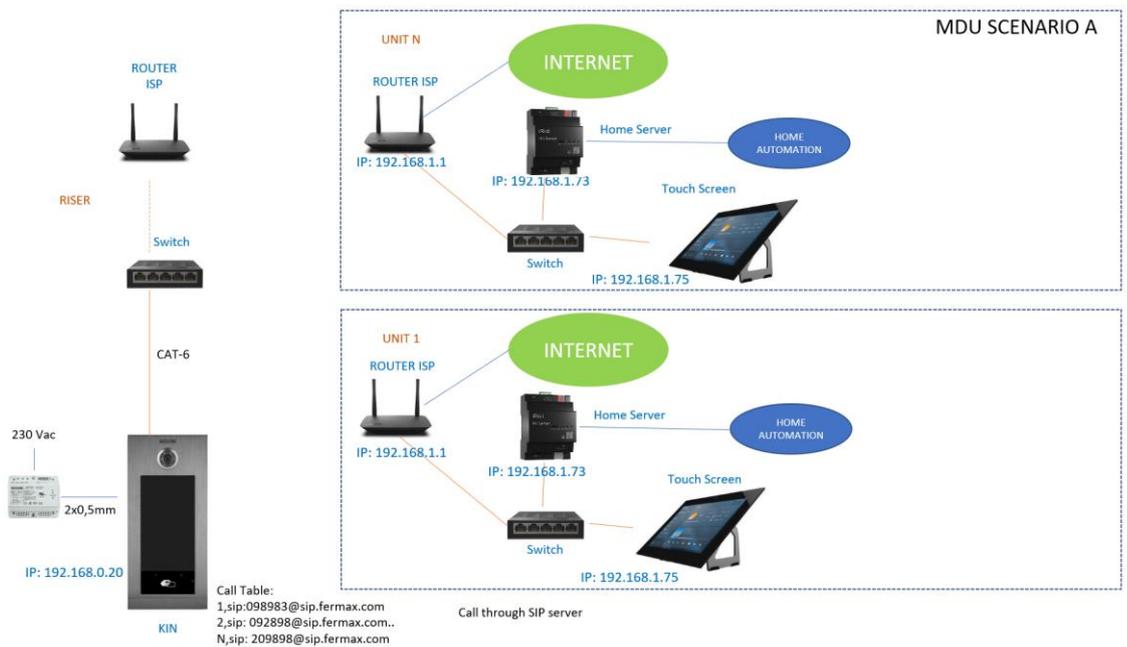
The call from the outdoor panel is made via the internet, so an internet connection is required in the building. If the internet connection fails, the call will not be received in the home.

   b. With Fermax monitors.

The call from the outdoor panel is secured as it does not use the internet. An internet connection is required in the building if call forwarding to the mobile is desired.

INSTALLATION

No special requirements, following the installation protocol of a Meet system entrance panel and the corresponding part of the Iridi system.

CONFIGURATION

CALL RECEPTION IN IRIDI APP.

A. STREET PANEL

To configure the entrance panel, use a browser and access the IP address assigned to the entrance panel, by default 10.1.0.1 (building entrance panel) or 10.1.1.2 (one way panel) and enter the user *admin* and default password *123456*.

The following steps will be followed:

1) Network settings

The IP address within the local network assigned to the entrance panel and the rest of the network parameters will be indicated: mask, Gateway or router to access the Internet. The software IP address does not need to be changed if there is no building administrator with the management software.

In a single-family installation, an IP address will be assigned to the entrance panel within the range of the rest of the elements in the home. In a type B building installation, one IP address shall be assigned to the entrance panel and another to each of the monitors in scenario B, within the same range.

NETWORK SETTINGS

IP:	192.168.1.225
MASK:	255.255.255.0
GATEWAY:	192.168.1.1
DNS:	8.8.8.8
SOFTWARE IP:	192.168.1.223
SW. PIN:	••••••

SAVE

After saving this information, it will be necessary to connect again to the web server of the entrance panel via the newly assigned IP address in order to continue the configuration.

2) General configuration

Parameters such as language, sound volume and resolution are indicated. It is important to adjust the camera resolution to get the best performance of the video on the Iridi screen. Regarding the divert mode, select 'parallel' so that the Iridi display and the WIT monitor receive the call simultaneously.

For the 1-line board the configuration page is as follows:

GENERAL SETTINGS

TYPE:	1W PANEL
BLOCK:	1
APARTMENT:	1
DEVICE NO.:	1
DEVICE TAG:	FERMAX (≦16 CHARACTERS)
LANGUAGE:	ENGLISH
PANEL VOLUME:	5
DOOR OPEN VOICE:	☑
VIDEO RESOLUTION:	320x240
SIP DIVERT MODE:	PARALLEL CALL
DATE FORMAT:	DD/MM/YYYY
DATE:	01 / 01 / 2018
TIME:	08 : 01 : 12
TIME ZONE:	GMT+01:00

SAVE

*By default the one way panel is configured with flat 101. In this example it has been changed to value 1.

For the building panel is this one:

3) SIP extension call setup

This step is necessary if the call is to be made to the i3KNX app and/or the Iridi display. Also, if you are going to receive the call from the door station in the MeetMe app. The same extension can be used in all of them (one single licence).

The Iridi devices (screen or apps) receive the call via a SIP server and therefore must be associated with an extension of that server. The outdoor panel must also be connected to the same SIP server with an extension of the same server. This document describes the use of Fermax sip server.

In the **SIP** Configuration section, indicate the server and the user and password assigned to the outdoor panel, which is indicated on the licence sticker attached to it. Next, check if the panel is correctly configured in the server by clicking on the VIEW SIP STATUS link. If REGISTERED does not appear, check the information entered and the internet connection.

Note: The SIP TRUNK option should not be used in this type of application.

Now you have to indicate the licence for the call to the Iridi Display or i3KNX App or MeetMe App.

3.1 WIT monitor is installed.

The Wit monitor includes a licence for call forwarding. The monitor must be configured with this licence. In the ADVANCED section of the monitor's web server, the extension and server are configured with the text: 'sip:user@sip.fermax.com', where user is the licence.

DEVICE	**ADVANCED SETTINGS**
GENERAL	
NETWORK	SIP EXT.: `1`
IP CAMERA	URL: `sip:0995738@sip.fermax.com`
SIP	AUTO ANSWER: ☐
ADVANCED	ONU(GPON): ☐
ACTUATORS	DTMF UNLOCK: ☑
VERIFICATION	DTMF KEY: `*`
PINCODE	NUMBER OF DOORLOCKS: `0`
RESTORE	NUMBER OF CAMERAS: `0`
	SAVE

3.2 No WIT monitor is installed.

It will be necessary to purchase a call forwarding licence ref. 1496. In the call configuration step in the outdoor panel, the call to this licence will be included (see next section).

4) Receiver configuration on panel
    a. One-line panel.
    In the SIP CALL section, the SIP extension of the receiver associated with the call of the individual pushbutton of this panel must be indicated. Indicate the apartment '1' (or the one configured as APART in the GENERAL tab and as the assigned number the value: sip:extension@sip.fermax.com and click on Save. The table will be automatically filled in.

DEVICE	**SIP CALL SET**
GENERAL	
NETWORK	APARTMENT: `1`
ACC	NUMBER: `sip:0995738@sip.fe`
SIP	DELETE: ☑
SIP TRUNK	SAVE
SIP CALL	
ADVANCED	
PINCODE	
RESTORE	

APARTMENT	NUMBER	APARTMENT	NUMBER	APARTMENT	NU
1	sip:0995738@sip.fermax.com				

The home WIT monitor (if any) must be assigned this address '1' to receive the call at the same time as the Iridi display.
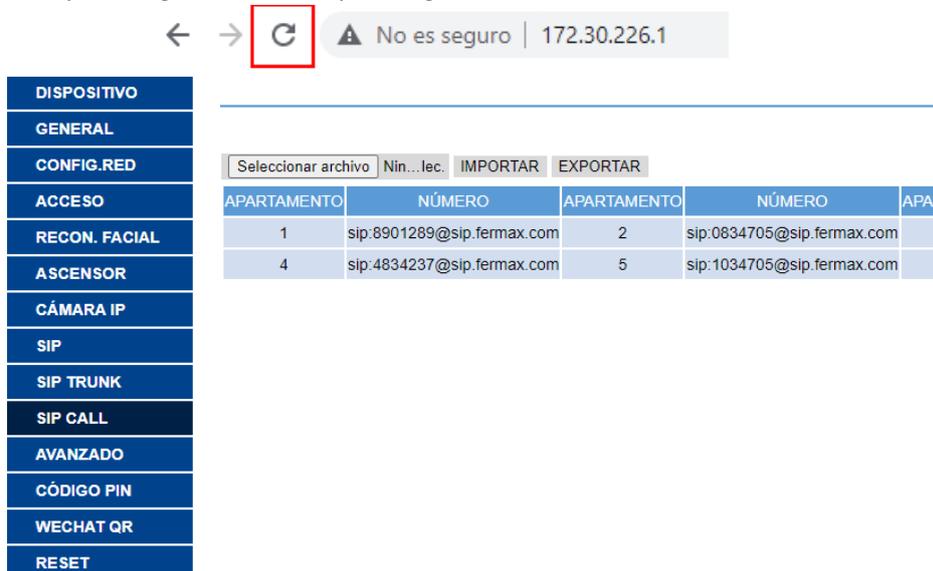
    b. Building panel.
    An CSV file must be configured with the assignment of the call code of each home that has the Iridi screen installed. The file format can be downloaded from the **SIP CALL** section of the board's web server, EXPORT option.

    An example is the following:

```
APARTMENT,NUMBER,
1,sip:8901289@sip.fermax.com,
2,sip:0834705@sip.fermax.com,
3,sip:2034742@sip.fermax.com,
4,sip:4834237@sip.fermax.com,
5,sip:1034705@sip.fermax.com,
6,sip:2834705@sip.fermax.com,
```

The call code of the home is given first and, separated by a comma, the text 'sip:' and the extension of the called party followed by @ and the SIP server.

To load the CSV file on the panel, select the file created and click on the IMPORT button. The list of calls will appear on the screen. Sometimes it is necessary to refresh the browser screen by clicking on the corresponding icon:

B. Iridium Server

This step must be performed if the MEET monitor is not used to receive the outdoor panel calls.
To configure the Home Server, it is recommended to use the Windows i3KNX application and connect the PC to the same network as the Iridi Home Server.

When the application starts up, it will detect the Home Server and we will be able to configure it from the option '...' at the top right, going to Config.
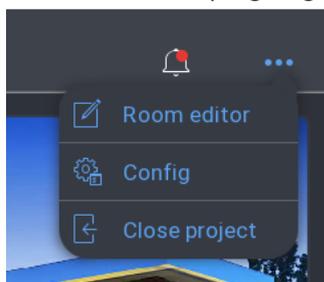
The rooms where we have devices must be registered, in particular one for the outdoor panel. Entrance panel configuration for call reception in the i3KNX app:
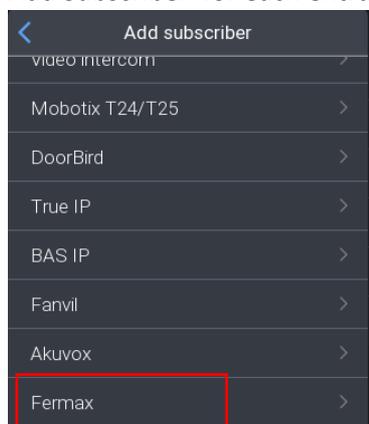   o   Register the SIP server device:
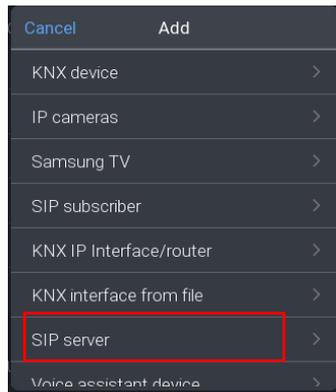
- o Enter the Fermax SIP server data:
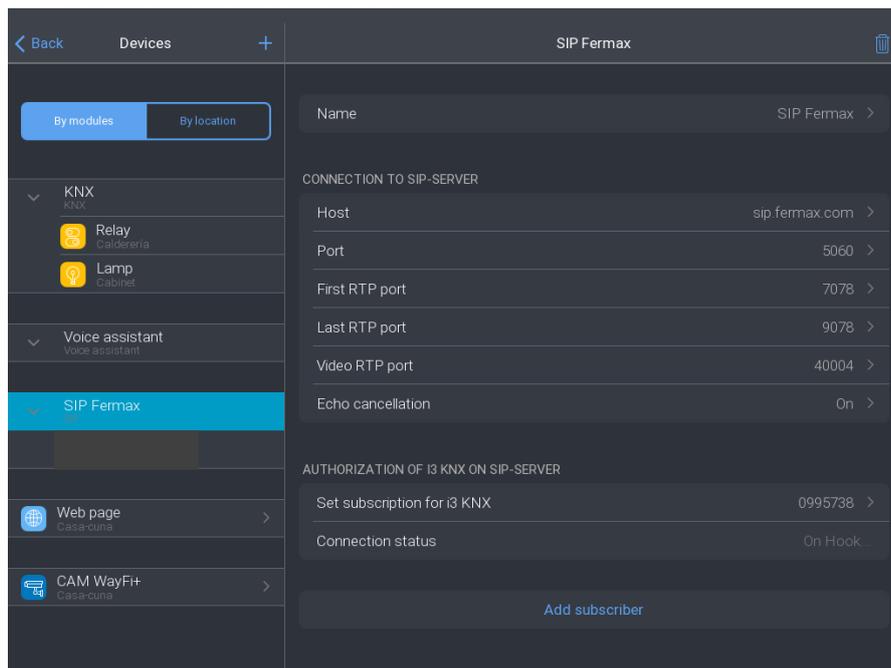
- ▪ Host: sip.fermax.com
- ▪ Ports can be left as they are by default.
- ▪ Assign a server licence for the i3KNX client. If there is a MEET monitor in the flat, the same licence can be used (0995738 in the example, with its password).
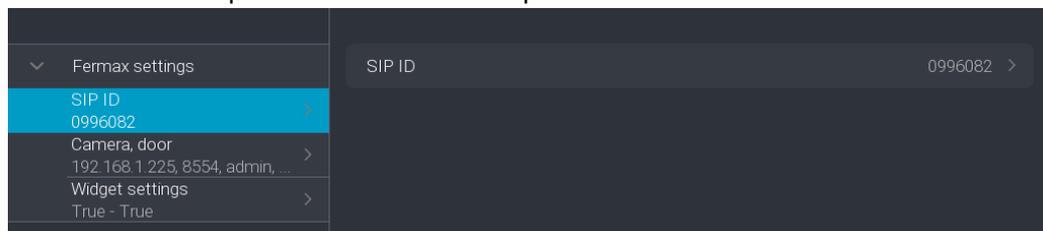- o Add Subscriber' for each entrance panel: choose FERMAX model:

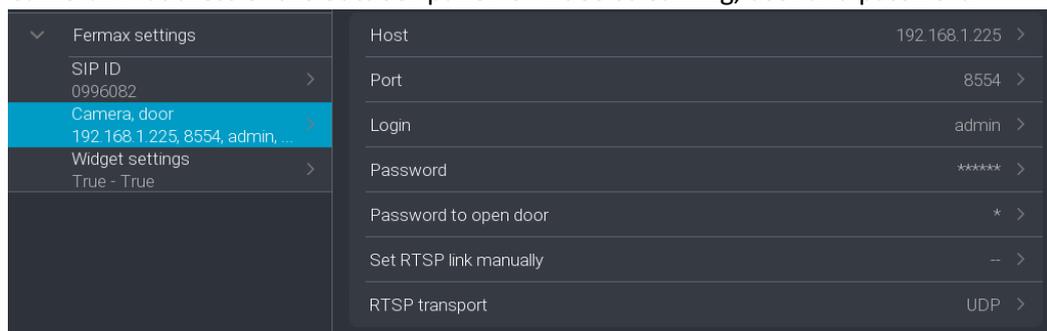- o In Fermax Settings, enter the SIP licence data of the outdoor panel (the panel must have been previously registered with this extension. See chapter A.3).
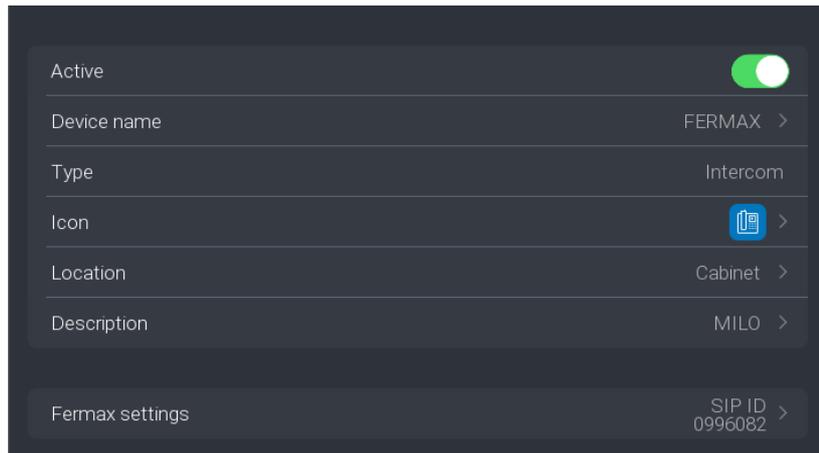
In Fermax Settings:

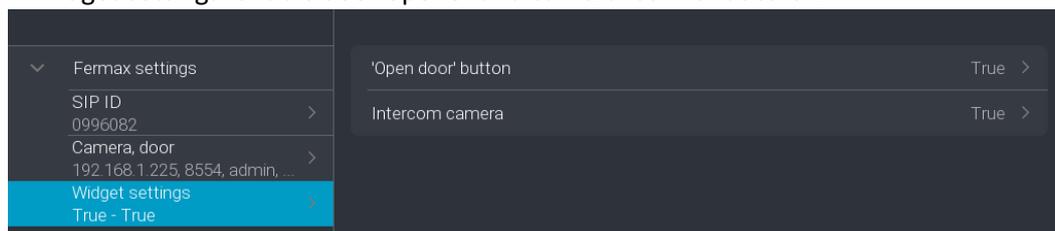SIP ID: Enter the sip licence of the outdoor panel:

Camera: IP address of the outdoor panel for video streaming, user and password

The opening password must be #, although it will appear as *.

o In widget settings: enable door opener and camera icon for auto-on.

Note: Video transmission from the entrance panel is done via RTSP protocol. If an IP address from the local network is used, video can only be received if the i3KNX app is connected to the same network. Outside the home, therefore, it will not be received. In order to be able to receive video outside the home, it is necessary to:

o indicate as IP address the WAN address of the home (provided it is static).
o map port 8554 in the router to the local IP of the outdoor panel.
o have the NAT Loopback option enabled to be able to access the video from within the same network as the outdoor panel.

o   If everything is correct, the camera image will be displayed:
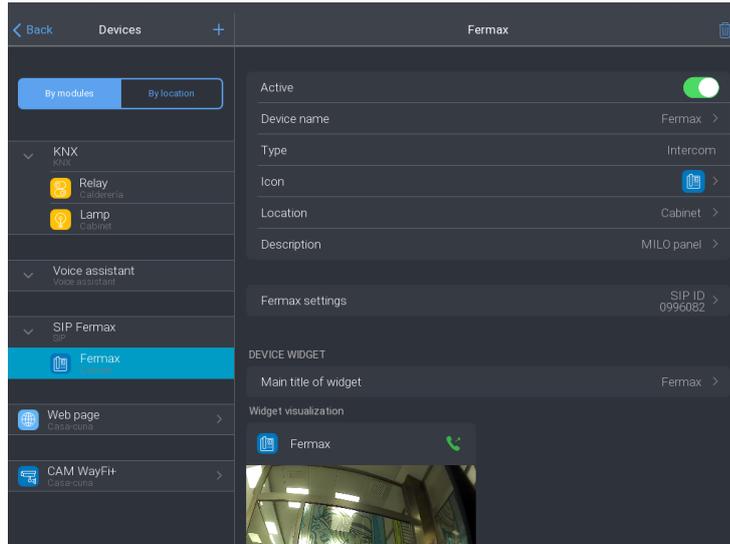
This information is stored on the cloud and the apps collect it from it to register. In this way they can auto-start and receive calls.

o   Configuration of push notifications to receive calls in the app. The app can receive calls as long as it is open and the mobile phone is not locked. As this situation rarely happens, it is ideal to be able to receive a notification when a call is made:
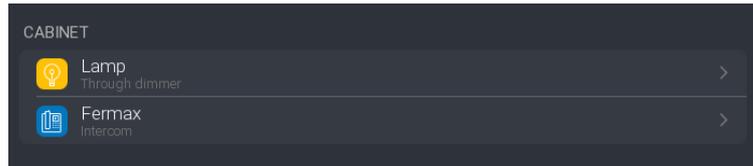
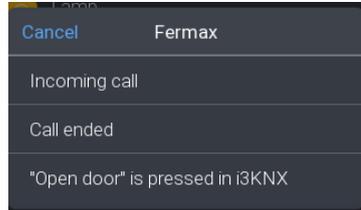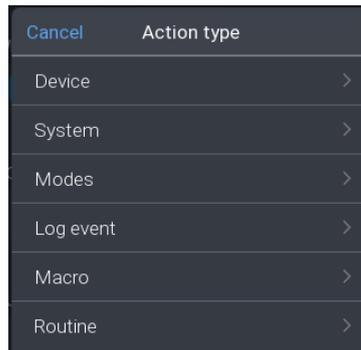▪   In Config>Routines, Create a routine.
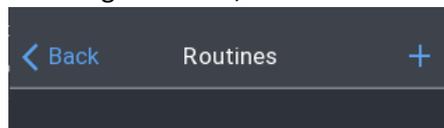
▪   Assign a name
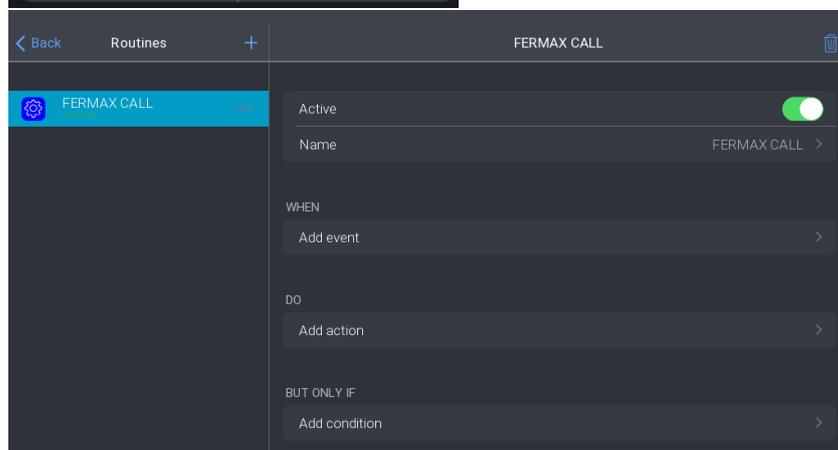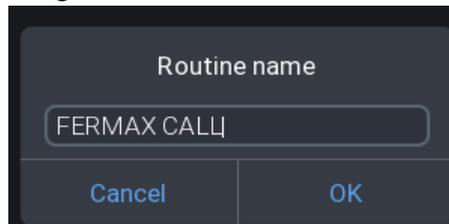
▪   Indicate when to send (WHEN):
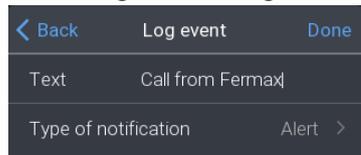▪   Type of event: Device, choose Fermax Intercom.
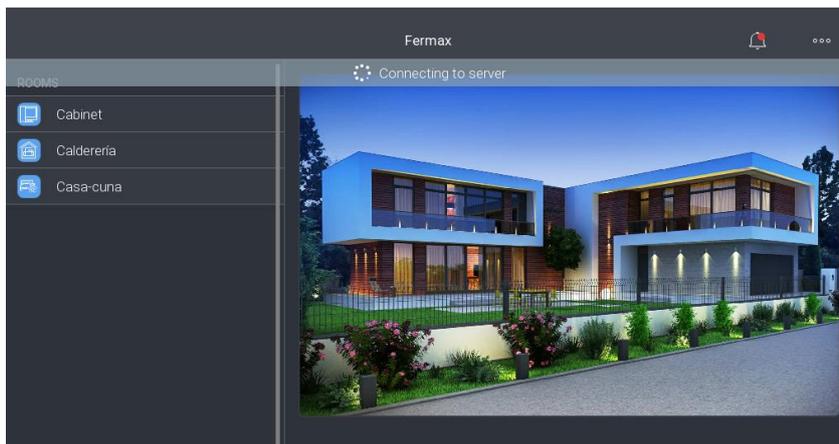
- for Incoming call

- Action (DO):

Select Log event, assign a message and the Alert notification type:

o Exit configuration and save the data on the server.

All the configuration is stored in the Iridi cloud, so that any app that registers with the username and password used will download it with the same configuration.

Download the mobile application and log in with the same account.

The configuration of the KNX Home Server has been described in order to receive the call in the i3KNX app. In case of using a different Iridi server (iRidi KNX Integration server or iRidi Pro server), the iRidi Studio app must be used and the server must be configured with the intercom parameters that we have seen in the previous example. The app to be used in these cases will be i3Pro.

Operation.

When calling from the entrance panel, if the i3KNX application is open and the mobile phone is not locked, a call reception window will be displayed with the option to answer the call and a ringing melody:

You can activate the audio or end the call. To open the door it is necessary to have previously opened the conversation.

If the app is closed, a notification will be displayed:
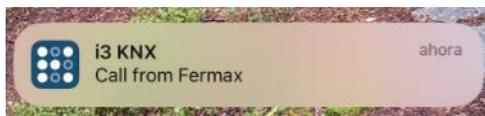
Clicking on the notification will open the i3KNX app and the room where the entrance panel is located will have to be opened to display the intercom window.

Video will be available if the IP address of the outdoor panel is accessible:

- If the IP of the panel has been specified and the app is on the same network as the outdoor panel.
- If the WAN of the router has been indicated and port 8554 has been routed to the IP of the panel.

HOME SERVER MANAGEMENT FROM MONITOR WIT.

Applications can be installed on the WIT monitor to manage the home automation system managed by the iRidi server.

In case of the i3Pro app, the image must be downloaded from this link: i3Pro

In the case of the i3KNX app, it must be downloaded from this link: i3KNX

Open the MEET System Upgrade Tool software (included in the downloaded files), select the i3KNX or i3Pro APP (1) and set the IP address range of the monitor: 192.168.1.83-83(2).
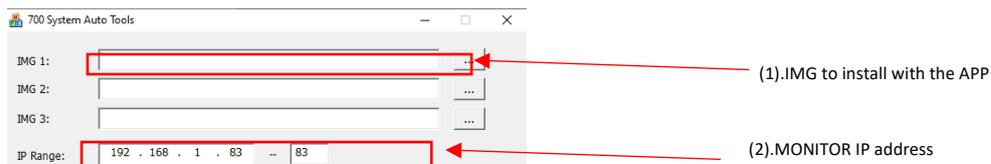
Press "Start" to search for MEET devices that are in the selected IP range.

Once detected, the application will be installed, and the monitor will restart.

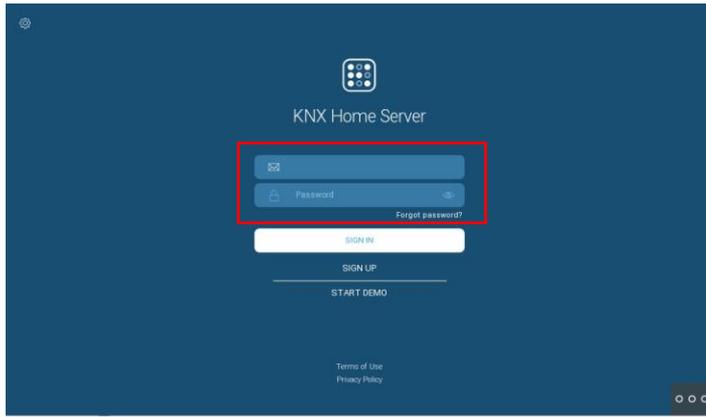On the monitor, go to the Installer menu (password 6666) and open the APPs menu.

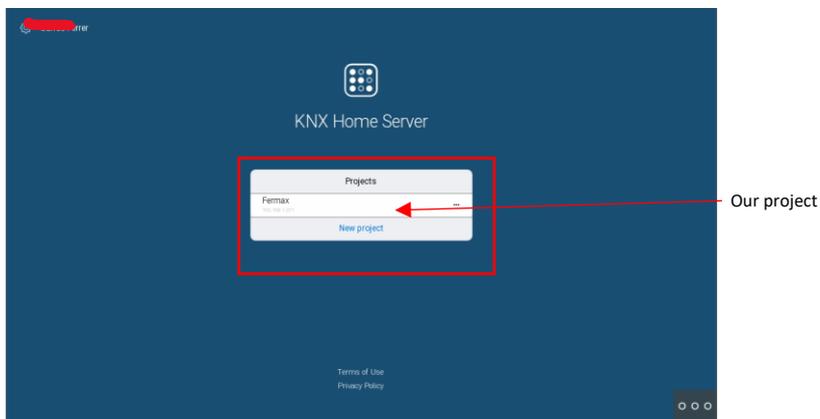Select the "i3 KNX" or "i3Pro" APP, assign an icon and save the changes.

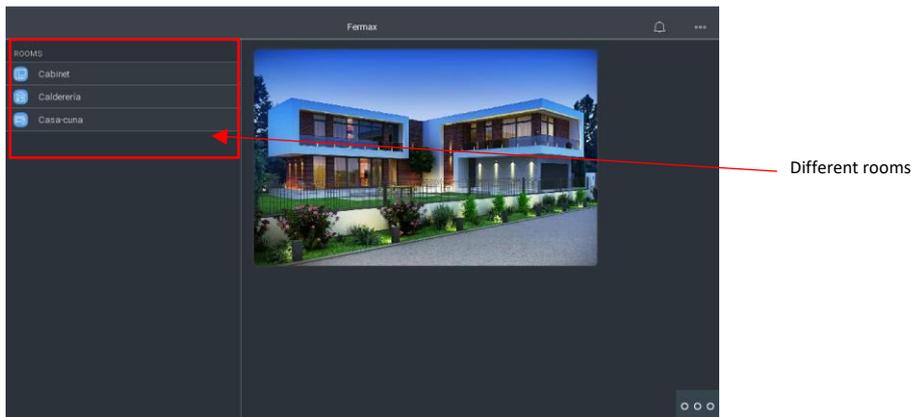The application will be displayed on the home screen of the monitor.

Once we open it, it will ask us to register with the user account with which the server is registered in the project.
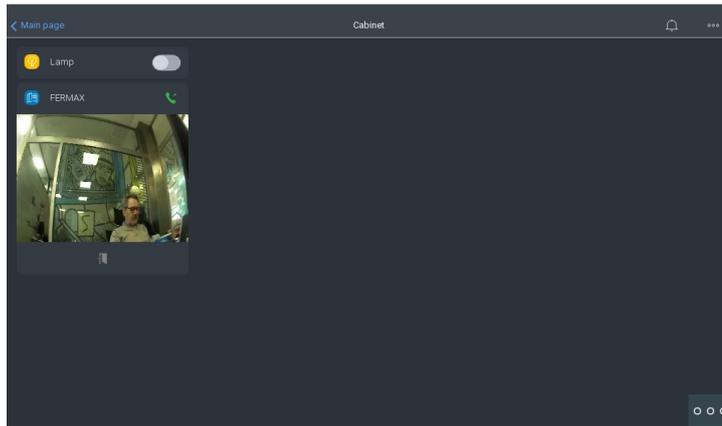
Choose the Project on the KNX Home Server and download it to access the Project on the server.

Our project

Once in this interface, the user will see the following:

Different rooms

We can enter the different rooms and manage the devices in them.

Note: if you are going to use the WIT monitor to receive the call from the outdoor panel, it is better not to create the Fermax intercom device in the Home Server as it will be received simultaneously as a MEET device and as a SIP device. In this case, if you wish to receive the call on your mobile phone, you must use the MeetMe app on it.

OTHER CONSIDERATIONS

The operation of the iRidi app on the WIT monitor has been tested with the following versions:

i3 KNX APP: 1.16.1 (special for Fermax)

i3 Pro APP: 1.3.61

FW monitor WIT: V03.50 (Android 10)

The integration referred to in this document is based on the version of the APP indicated. Therefore, FERMAX does not guarantee the successful integration of the MEET monitor with different versions of the APP that may be developed in the future.