



# CASE STUDY

## Meet integration with RTI Home Automation

### Description

It describes how to configure the Meet entrance panel and the guidelines for configuring the RTI screen to be able to receive the call from the entrance panel on the screens, as well as manage the RTI home automation from the WIT monitor.

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## 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 any MEET door station can be routed to an RTI home automation system.

This integration does not use a SIP server, so the call will be made directly from the outdoor panel to the display(s).

As an option, one or more Meet monitors can also be installed to receive the call in parallel to the RTI screens and take advantage of call forwarding to the MeetMe application, which allows call reception even if the application is closed or in the background.

The WIT monitor can also upload Android applications previously validated by Fermax and can be used both to receive calls from the outdoor panel and to manage the RTI home automation system as if it were done from a mobile phone, but with a larger, more convenient and always available screen. In this case it is necessary to purchase an RTI application licence ('Single' or 'Unlimited') to enable the connection as if it were a mobile phone.

## MATERIAL REQUIRED

Any Fermax MEET outdoor panel can be used for this integration, as all of them support SIP P2P protocol. In the case of a single-family home, the one-way MILO panel (a single pushbutton) will be used. In the case of a building or housing estate, the MILO panel can be used or, if an electronic directory is required, the KIN or MARINE panel.

The outdoor panel may require a power supply or PoE splitter if it does not support PoE, as well as the electric strike.

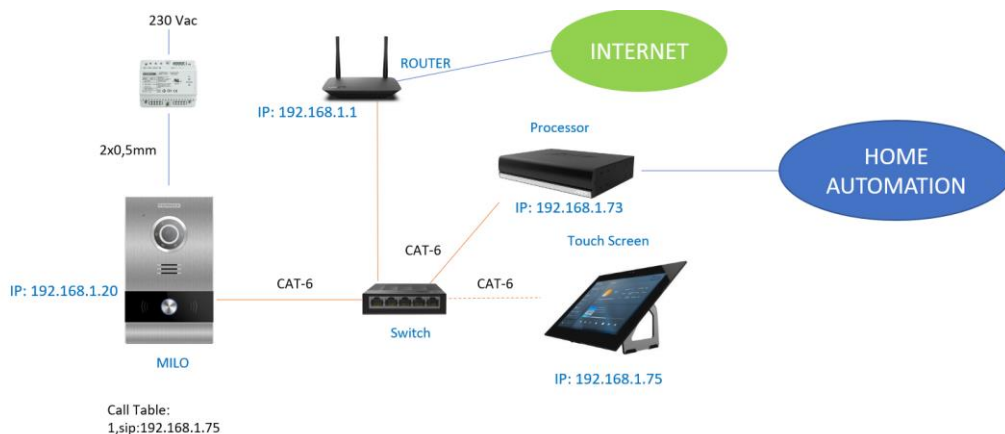
In case of a building installation, where the outdoor panel is shared with all dwellings, in order to maintain the security of the local networks of the dwellings, there are two options:

- a) If the RTI screen is used to receive the call, it will be necessary to use a dual wan router in each home, one connected to the building's video door entry network and one to the home network.
- b) Alternatively, if the WIT 10" monitor **ref. 14831** is used, the installation is simplified as the WIT monitor itself isolates the building's network from the local network of each home. In this case, the WIT monitor requires the installation of the RTI\_Panel application to manage the home automation and the 'Single' or 'Unlimited' application licence on the RTI XP processor. The call forwarding to the mobile phone must be carried out with the Fermax MeetMe app and an internet connection to the building is required.

## BASIC SCHEME

### 1) Single-family.

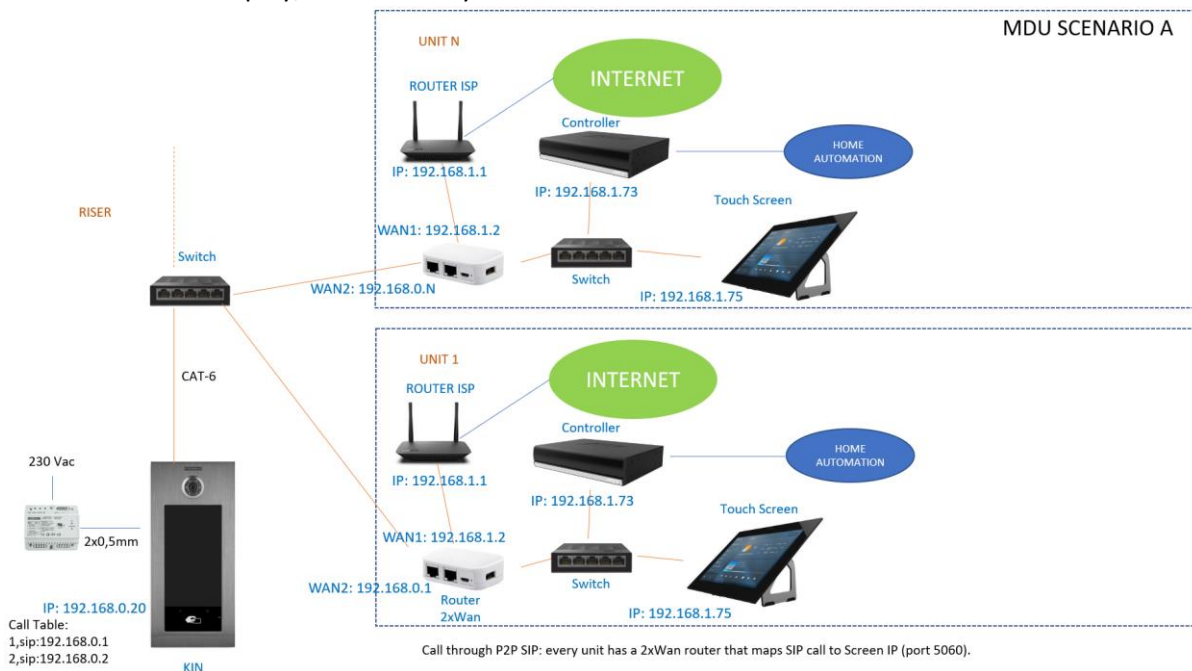
The usual MEET system installation scheme is used, with the only additional requirement of connecting the panel to the local network of the home installation, where it concur with the XP processor and RTI display (optional if a WIT monitor is used).



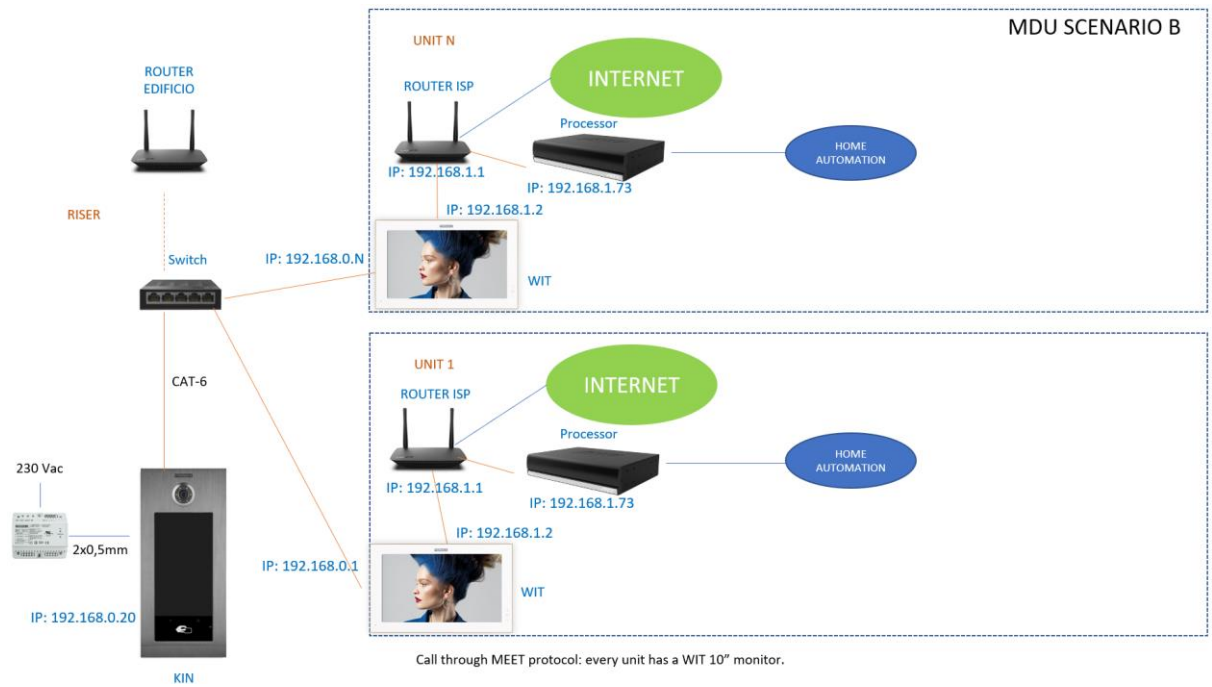
2) Building (MDU)

There are two installation options:

- a. With RTI display, it is necessary to install a dual wan router in each home.



- b. With WIT 10" monitor



## INSTALLATION

No special requirements, following the installation protocol of a Meet system entrance panel.

## CONFIGURATION

### 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 does not need to be changed if there is no building administrator with the management software.

DEVICE	NETWORK SETTINGS	
GENERAL		
<b>NETWORK</b>	IP:	192.168.1.20
ACC	MASK:	255.255.255.0
SIP	GATEWAY:	192.168.1.1
SIP TRUNK	DNS:	8.8.8.8
SIP CALL	SOFTWARE IP:	192.168.1.223
ADVANCED	SW. PIN:	*****
PINCODE		
RESTORE		
		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) SIP service configuration

In the **SIP** Configuration section, the option ACTIVATE SIP will not be activated since the communication is point to point, without a server.

DEVICE	SIP SETTINGS	
GENERAL		
<b>NETWORK</b>	ENABLE SIP:	<input type="checkbox"/>
ACC	SIP SERVER:	sip:sip.fermax.com
SIP	DOMAIN:	sip.fermax.com
SIP TRUNK	STUN IP:	
SIP CALL	STUN PORT:	5060
ADVANCED	H.264:	102
PINCODE	SIP USER:	0995548
RESTORE	SIP PASS:	*****
	CONVERSATION:	120s
	RING TIME:	30s
		SAVE

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

3) Receiver configuration

a. One-way panel.

In the SIP CALL section, the receiver associated with the call of the individual pushbutton of this panel must be indicated. Indicate the flat number configured in the GENERAL tab ('101' by default) and as the assigned number sip:IP value assigned to the RTI screen and click on Save. The table will be automatically filled in. In the example, the flat is 101 and the IP of the screen is 192.168.1.240.

DEVICE
GENERAL
NETWORK
ACC
SIP
SIP TRUNK
SIP CALL
ADVANCED
PINCODE
RESTORE

## SIP CALL SETTINGS

APARTMENT:

NUMBER:

DELETE:

APARTMENT	NUMBER	APARTMENT	NUMBER	APARTMENT	NUMBER
101	sip:192.168.1.240				

If there is more than one screen that has to receive the call, its IP shall be indicated after the first one, separated by ';'. For onstance:

<sip:192.168.1.240;sip:192.168.1.241>

call will be directed to displays with IP ending in 240 and 241.

b. Building panel.

For scenario A, a CSV table must be configured with the assignment of the house call number and the IP of the wan1 of the router with double wan of each house. The CSV file format can be downloaded from the **SIP CALL** section of the Panel's web server, EXPORT option.

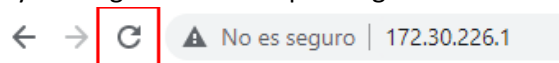
An example is the following:

```
APARTMENT,NUMBER,
1,sip:192.168.0.1,
2,sip:192.168.0.2,
3,sip:192.168.1.3,
```

The call code of the home is given first and, separated by a comma, the text 'sip:' and the IP of the home router, one line per home.

In the example, when calling house 1, the Meet monitor installed in the house (if any) and also the RTI screen managed by the router with IP 192.168.0.1 will be called. In the double wan router, it will be necessary to map port 5060 to the IP of the RTI screen.

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



DISPOSITIVO
GENERAL
CONFIG.RED
ACCESO
RECON. FACIAL
ASCENSOR
CÁMARA IP
SIP
SIP TRUNK
SIP CALL
AVANZADO
CÓDIGO PIN
WECHAT QR
RESET

## CONFIGURACIÓN LLAMADA SIP

APARTAMENTO	NÚMERO	APARTAMENTO	NÚMERO	APARTAMENTO	NÚMERO
1	sip:192.168.0.1	2	sip:192.168.0.2	3	sip:192.168.1.3

For scenario B it is not necessary to configure the SIP CALL section as the call is made via MEET protocol, and when dialling the call code, it will be received on the MEET monitor with the same house number.

#### 4) Camera resolution settings

In the GENERAL section of the outdoor panel, a suitable camera resolution must be chosen. The resolution of 640x480 does not give any problems with RTI screens. You can try a higher resolution (1024x720) and see that you do not suffer from image stops.

DEVICE
GENERAL
NETWORK
ACC
SIP
SIP TRUNK
SIP CALL
ADVANCED
PINCODE
RESTORE

## GENERAL SETTINGS

TYPE:

BLOCK:

APARTMENT:

DEVICE NO.:

DEVICE TAG:  (≤16 CHARACTERS)

LANGUAGE:

PANEL VOLUME:

DOOR OPEN VOICE:

VIDEO RESOLUTION:

SIP DIVERT MODE:

DATE FORMAT:

DATE:  /  /

TIME:  :  :

TIME ZONE:

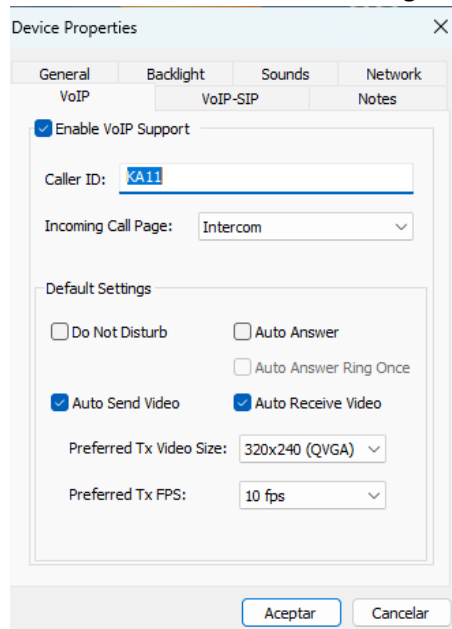
## RTI CONFIGURATION

The considerations to be taken into account in order to properly configure the RTI environment using the **Integration Designer** application are the following:

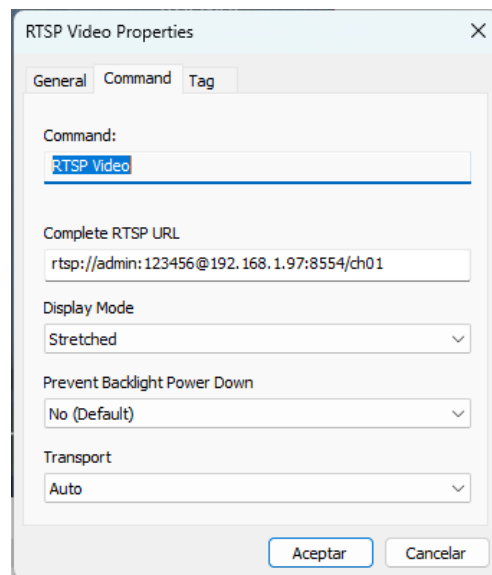
- Create a new project and add the selected XP processor. Optionally you can use the FERMAX template, which can be downloaded from this [link](#) that contains examples with XP-3 processor and KA11, KA8 displays and also for the Android application to be able to use the RTI\_Panel app on the FERMAX WIT monitor.



- Add the corresponding display model (within the models that allow SIP communication). Multiple displays can be added in a single project.
- Configure a static IP in the display or, failing that, assign an IP in the router associated with its MAC (this second option is the most recommended), the one used in the outdoor panel to call it, since, if dynamic is chosen and it is changed when restarting the display or the router, the call destination IP in the outdoor panel will have to be changed.
- VoIP SIP mode does not need to be configured as the call is made in P2P mode.



- The template includes the following operations:
  - o Receiving video in preview mode (before answering the call from the outdoor panel) by receiving an rtsp stream. The URL to be used is the following:

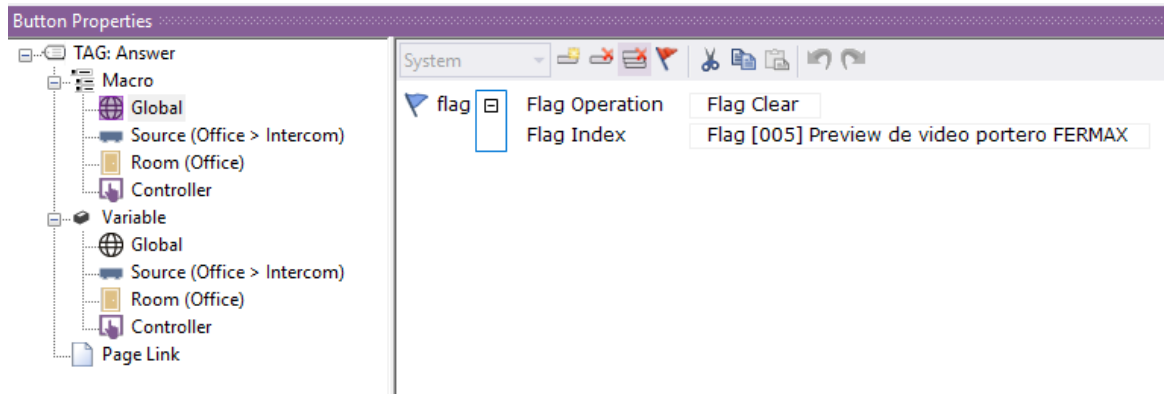


rtsp://admin:123456@Panel\_IP:8554/ch01

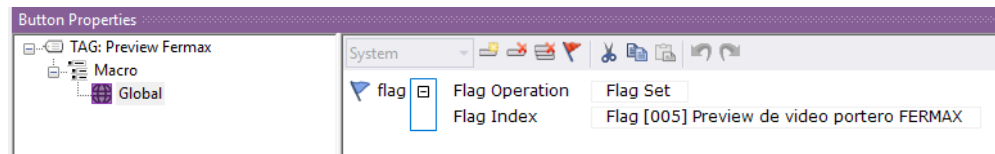
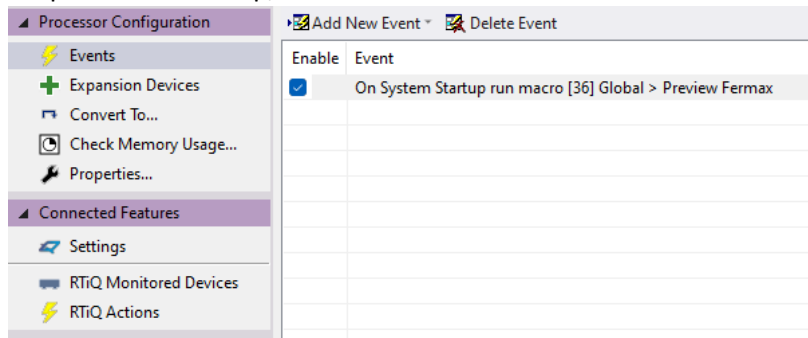
where:

- 123456 is the default password for the outdoor panel web server, if changed, use the new one.

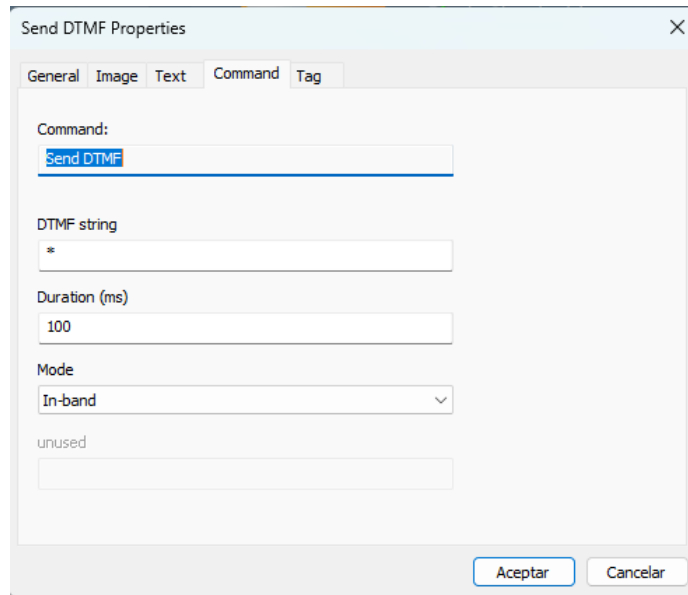
- Panel IP is the IP of the outdoor panel.
  - The image quality is configured in the GENERAL menu of the web server of the entrance panel.
- The flag with the name 'FERMAX video intercom preview' is used to manage the visibility of the layer containing the preview image before answering the call.



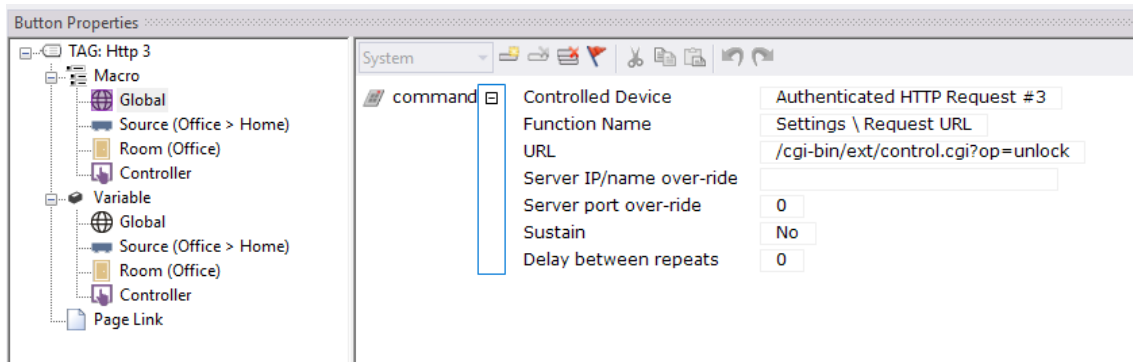
On processor start-up, the variable is initialised:



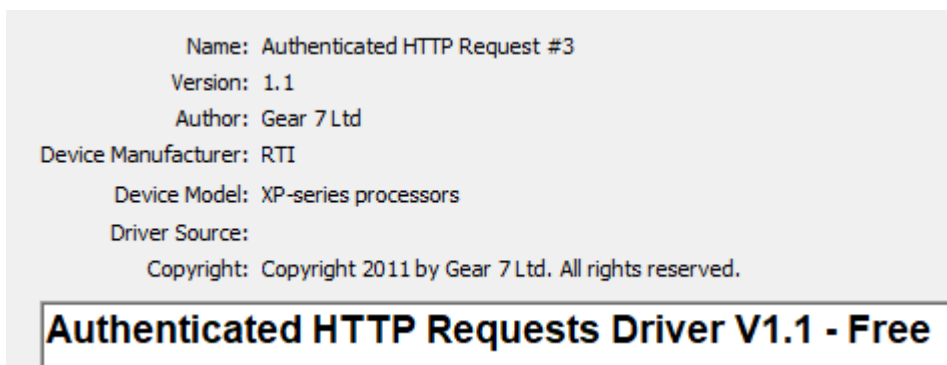
- For the door unlocking there are two options:
  - OPTION 1: Send a DTMF Inband ('\*' or '#') when the audio communication has been opened. This option does not allow door unlocking without previous call reception.



- **OPTION 2: Send the command:**  
<http://admin:123456@IP/cgi-bin/ext/control.cgi?op=unlock>  
 where:
  - 123456 is the default web server access password for the outdoor panel.
  - IP is the IP address of the outdoor panel.



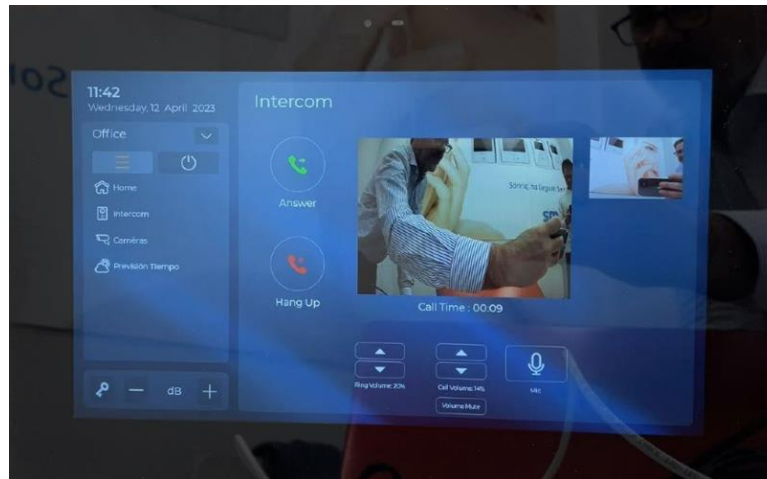
In order to use OPTION 2, it is necessary to install the 'Authenticated HTTP Requests Driver V1.1' (included in templates) and available for free on the RTI forum.



And configure it to communicate with the street panel.

Authenticated HTTP Request #3 X															
<ul style="list-style-type: none"> <li>Driver Configuration</li> <li>Driver Utilities...</li> <li>Driver Properties</li> <li>Driver Events</li> <li>Driver Info</li> </ul>	<table border="1"> <thead> <tr> <th colspan="2">System Settings</th> </tr> </thead> <tbody> <tr> <td>Processor</td> <td>Default (Master)</td> </tr> <tr> <th colspan="2">Communication Settings</th> </tr> <tr> <td>IP Address</td> <td>192.168.1.97</td> </tr> <tr> <td>TCP Port</td> <td>80</td> </tr> <tr> <td>User Name</td> <td>admin</td> </tr> <tr> <td>Password</td> <td>123456</td> </tr> </tbody> </table>	System Settings		Processor	Default (Master)	Communication Settings		IP Address	192.168.1.97	TCP Port	80	User Name	admin	Password	123456
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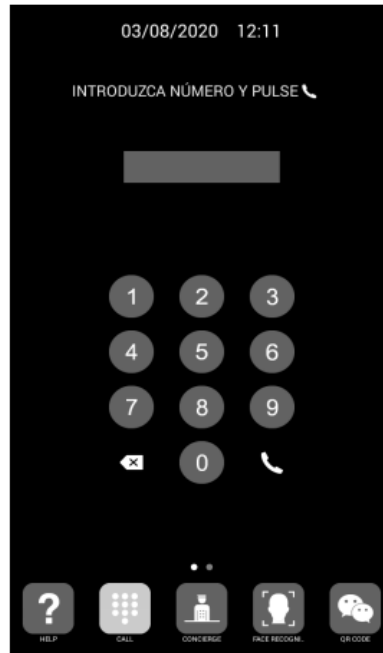
The UI that generates the template is as follows:



There are buttons to connect at will to the outdoor panel (Intercom), a mute button to mute the audio, buttons to accept, reject and end the call, a button to unlock the door without prior connection (key) and adjustment of the conversation volume and the ringing tone.

## OPERATION

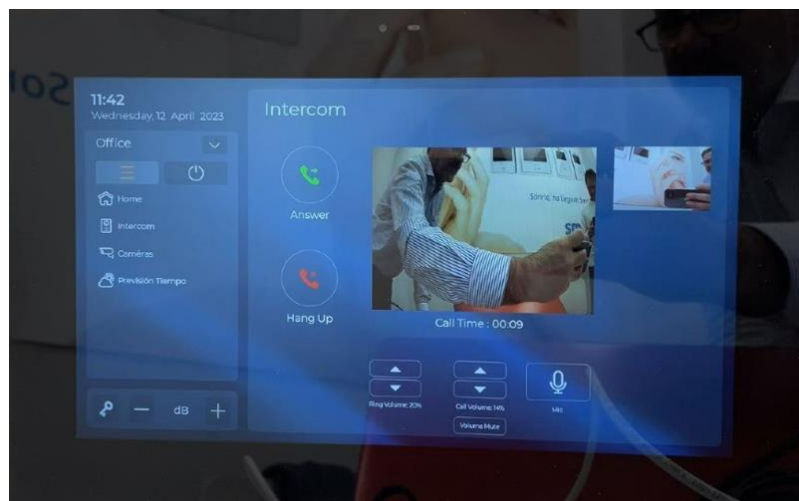
To call the specific flat, press the individual button (single line panel) or enter the associated call code and confirm with the corresponding button (depending on the panel, this will be the bell button or 'B' on MILO and MARINE panels or the off-hook icon on KIN panels).



### Direct code call

The panel will generate the call to both the home's Meet monitor (if any) and the RTI display associated with that home, which will announce the call from the panel.

The video from the outdoor panel camera will be automatically displayed.



Pressing the answer button will open the two-way audio channel. The conversation time is limited to 120". You have the option to unlock the door at any time, to adjust the conversation volume or to mute it.

If the MEET monitor is used in the home, it is also possible to receive the call in the MeetMe app, as long as there is an internet connection in the building.

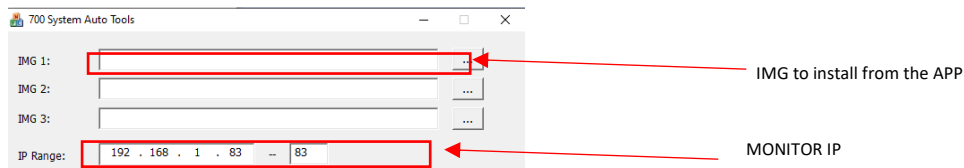
The connection to the entrance panel can be made at will from the RTI screen, without being called beforehand, by clicking on the camera option. In this case, no audio conversation will be available, but the door can be unlocked.

Likewise, the door can be unlocked without the need to establish communication, by directly pressing the key icon.

## "RTI\_PANEL" APP INSTALLATION ON MEET MONITOR

The compatible monitor is the reference F14831 (10 inch) or F14721 (7 inch). Download the [MEET RTI A10](#) file and connect to the IP video door entry network where the MEET Monitors are located.

Open the MEET System Upgrade Tool software, select the RTiPanel\_X.X.X.X\_a10 file as IMG1 and set the IP address range of the monitor(s), in the example 192.168.1.83-83 (single monitor).



Press "Start" to start downloading the application to the monitor(s). Once installed, the monitor will restart.

Monitor > Go to the Installer menu (password 6666) and open the APPs menu.



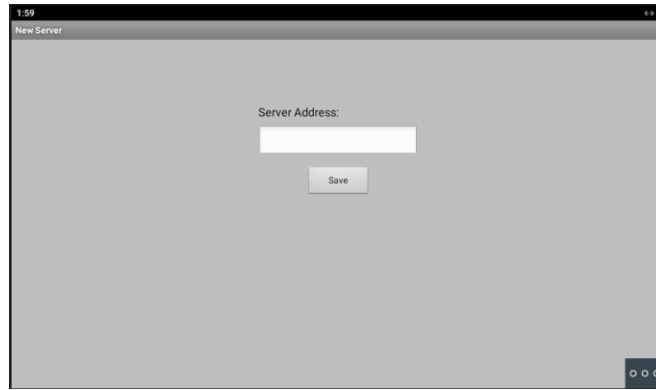
Select the "RTiPanel" APP and assign an icon to it. Save the changes.

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



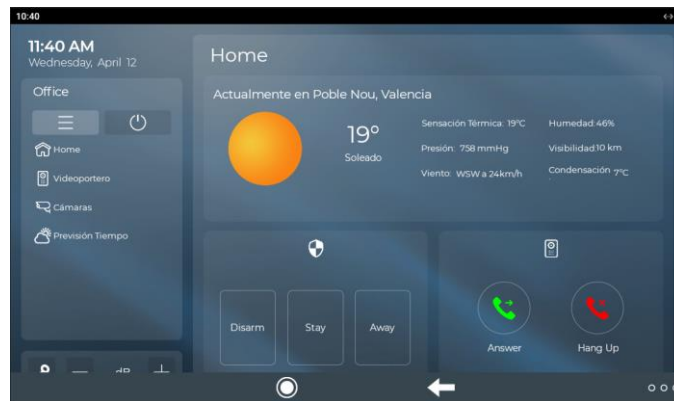
In order to connect to the processor, an app licence must be installed on the processor.

Once we open it, we must register the installation by connecting to the RTI XP processor:



by clicking on the + icon at the top right.

Select the Android interface from the list of available interfaces. When saving, it will download the processor configuration (a few seconds) and display the menu with the available options that have been configured in the template. The operation is the same as for the RTI screen, except for the video door entry function, which will not appear as it is native to the Fermax monitor and simplifies operation.



The application can remain always active (foreground), as in an RTI screen. When a call is received, it will be interrupted momentarily to answer the call, and when the call is finished, it will be displayed again at the menu point where it was interrupted. The monitor has a 60 second return to idle time in which the display is turned off, if not acted upon, to maintain the durability of the TFT and reduce power consumption. Touching the screen again will return the application to the same point where it was displayed before the sleep mode.