CASE STUDY

Integration of Meet Intercom system with DorSIP PBX from DASSnet DORLET

Description

It describes how to configure the Meet outdoor panel and the DorSIP PBX from DASSnet to route calls from the panel to any SIP extension.

V 1.0

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INTRODUCTION

In offices and companies, it is common to connect the video door entry panel to the telephone switchboard to receive the call on a specific extension, preferably on the employee's computer, simplifying the work of installing and receiving calls. With the evolution of switchboards, a world of previously unimaginable advantages is now available, such as receiving the call on any extension located in different locations or even on the smartphone, and receiving video on the call, which was not available on an analogue telephone interface. You therefore have the same features as in a video door entry monitor if the terminal receiving the call has a screen: two-way conversation, visualisation of the visit and door opening.

The Fermax outdoor panel has evolved to adapt to this environment, and a clear example is the MEET panel, with IP technology, which supports SIP protocol, necessary in this type of integration. In this application, the outdoor panel must register in the SIP switchboard with a username and password and route calls to the required extension(s).

In the specific case of the DORLET DASSnet® SIP client, let's see how to configure the MEET outdoor panel, the DorSIP PBX and the DASSnet® client so that they can work together.

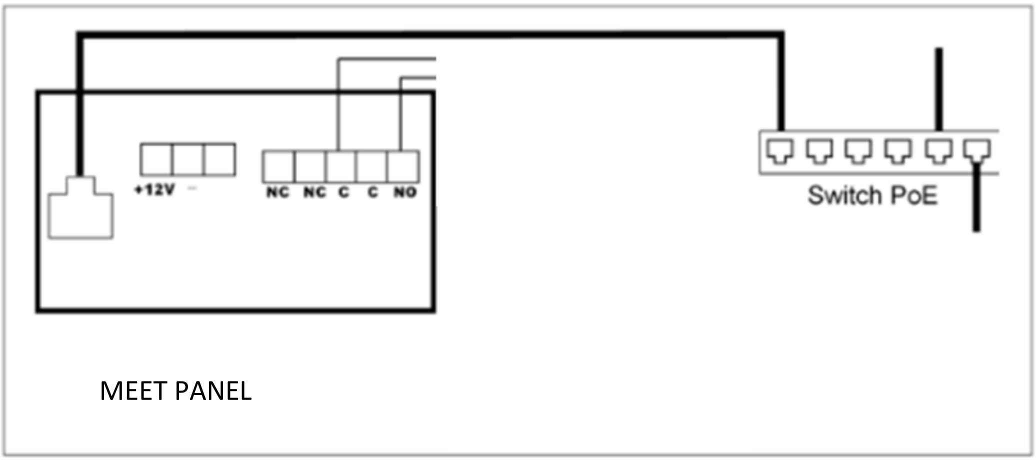
MATERIAL REQUIRED

Any Fermax MEET outdoor panel can be used for this integration, as all of them support SIP protocol. If you want to call a single extension, it is advisable to use the one-way MILO panel (a single pushbutton) or the KIN or MARINE panel in one-way mode. If you want to call different extensions to locate different people, you can use the MILO panel or, if an electronic directory is required, the KIN or MARINE panel.

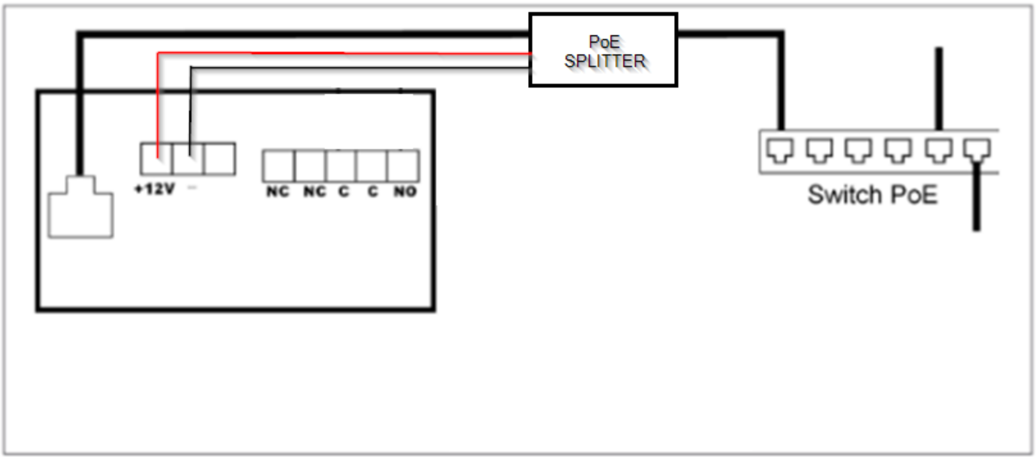
The outdoor panel may require a power supply if PoE is not supported.

A DORLET controller (UCA) must be used for door unlock as the door opener will be connected to it. The Mifare proximity reader of the outdoor panel (KIN, MARINE, MILO building) will be connected to the controller for full integration.

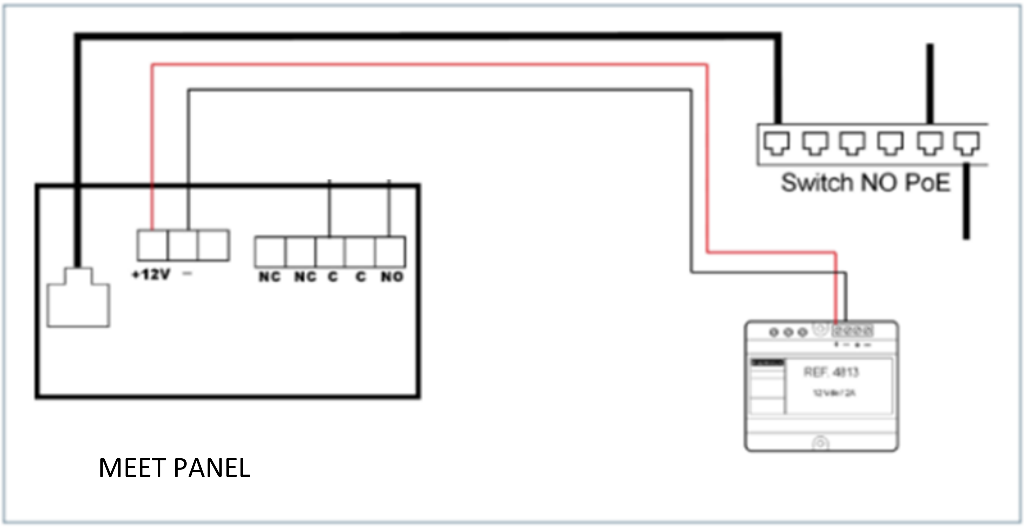
BASIC SCHEME



Power supply to the panel via PoE switch.

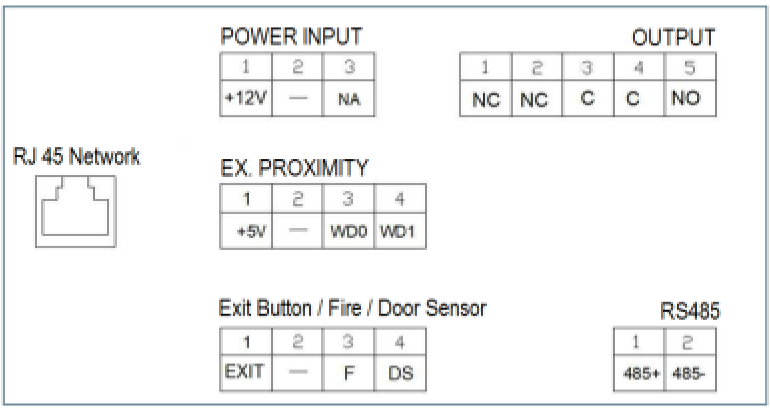


Power supply to the panel via PoE splitter.



Power supply to the panel via additional power supply.

Connection of the outdoor panel to the controller (UCA):



The EX.PROXIMITY connector contains the Wiegand-26 signals from the internal Mifare proximity reader:

- WD0= Data0
- WD1= Data1
- - = negative.

If the door-open voice message is to be played on the outdoor panel, the UCA shall make a contact closure between the EXIT and - signals when allowing access to users.

INSTALLATION

Once the outdoor panel is installed, it must be connected to a switch or directly to the installation's router. The door opener connection will be wired to the UCA. Finally, the panel will be wired to the power supply or PoE splitter if required.

It is possible to connect a MEET monitor to simultaneously receive the call inside the office, as a backup to the call through the switchboard.

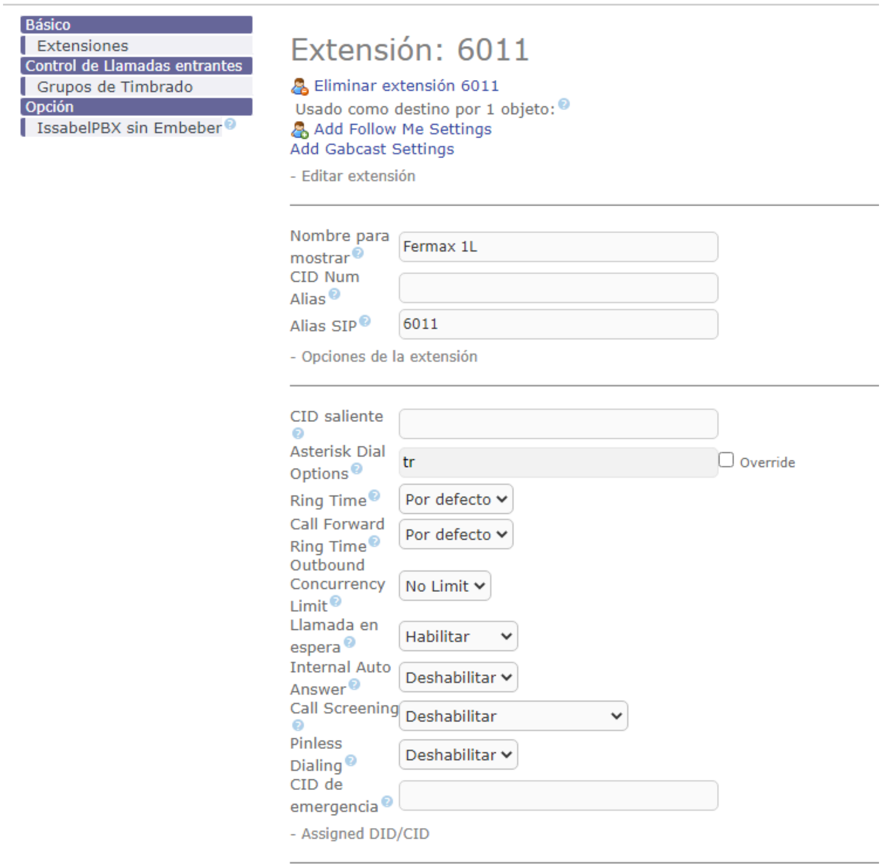
CONFIGURATION

SIP PABX

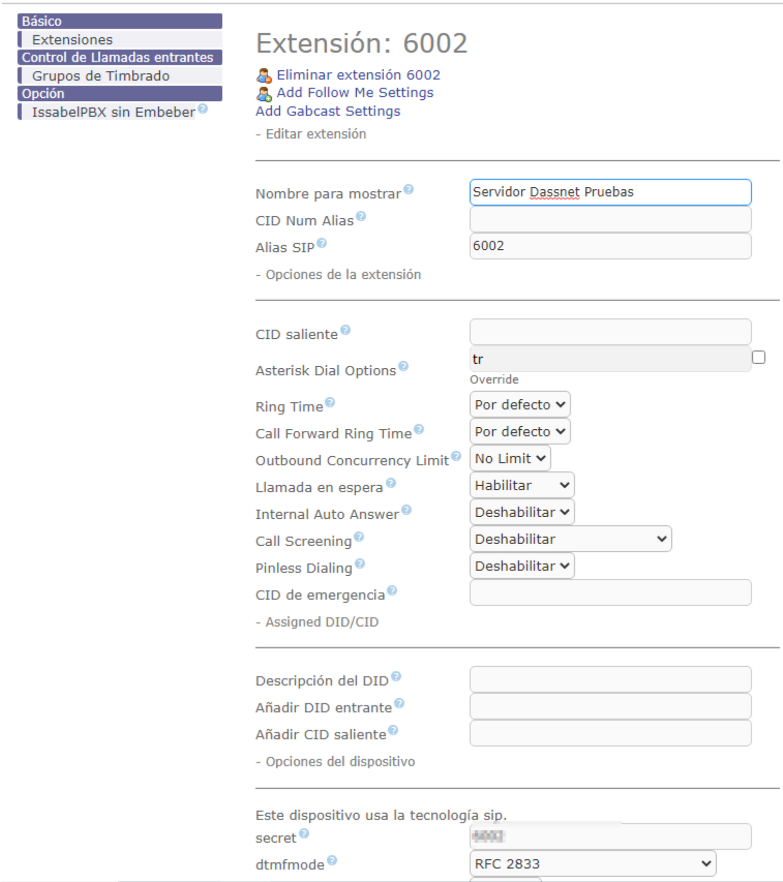
The first thing we will have to do for the correct operation of the MEET outdoor panel in DASSnet® is to configure the different extensions necessary for its correct operation in the SIP PBX. Any SIP PBX can be used.

In the case of the DorSIP switchboard, registration is carried out as follows:

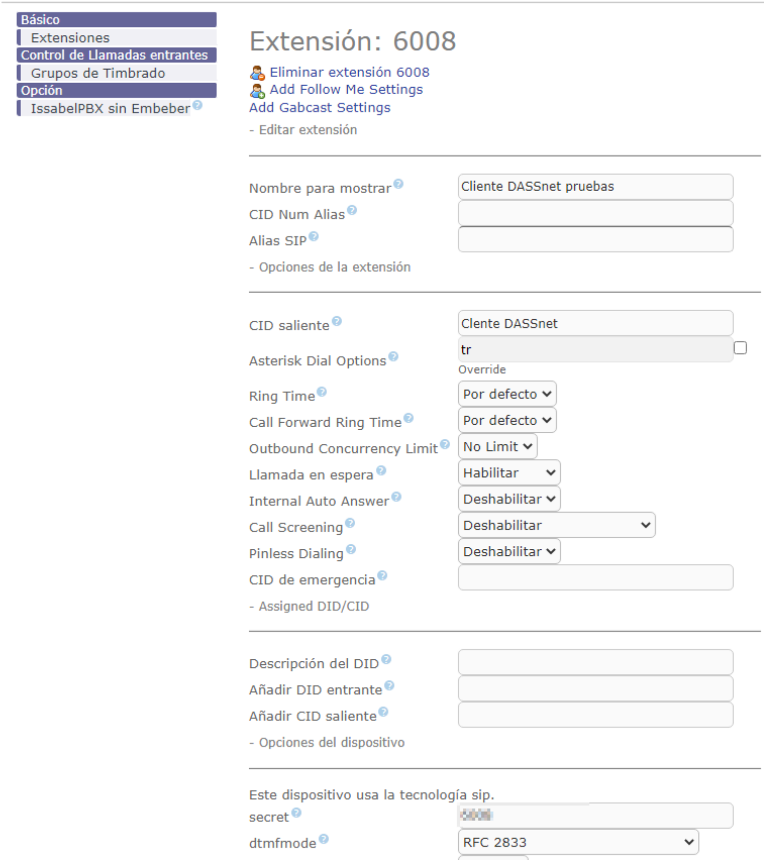
1) Create an extension for the outdoor panel (6011 in the example), under PBX Configuration - Extensions.



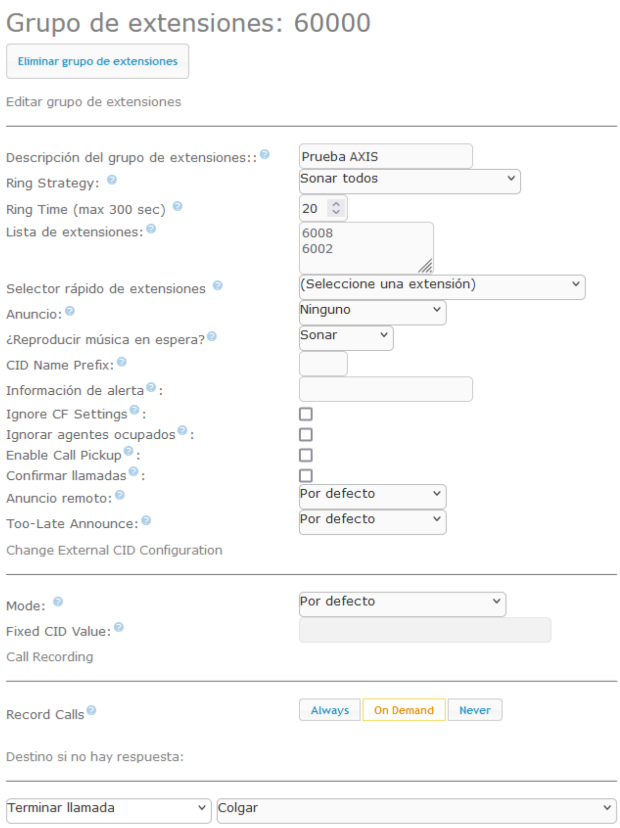
2) We create an extension for the DASSnet server (6002 in the example). This extension is necessary in case you want to perform automatic actions.



3) We create another extension for the receiver of the call, the DASSnet client (6008 in the example).



4) Finally, we create a call group (60000 in the below example), where we configure the two extensions the door panel shall call simultaneously.



OUTDOOR PANEL CONFIGURATION

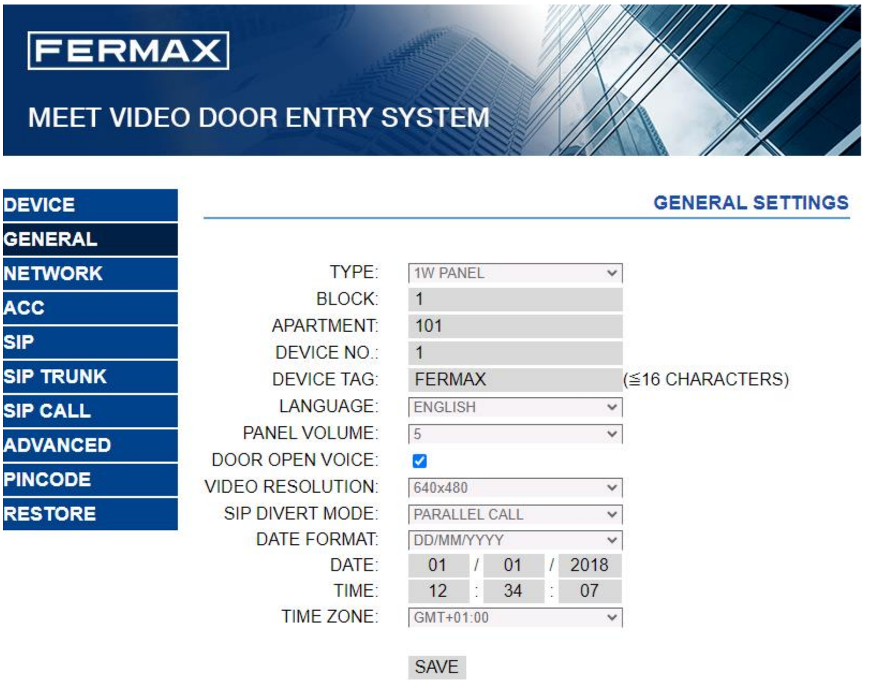
To configure the outdoor panel, use a browser and access the IP address assigned to the entrance panel, by default 10.1.0.1 (building entrance panel) or 10.1.1.2 (one-way panel) and enter the user admin and default password 123456.

The following steps will be followed:

1) General configuration

   a. One-way panel

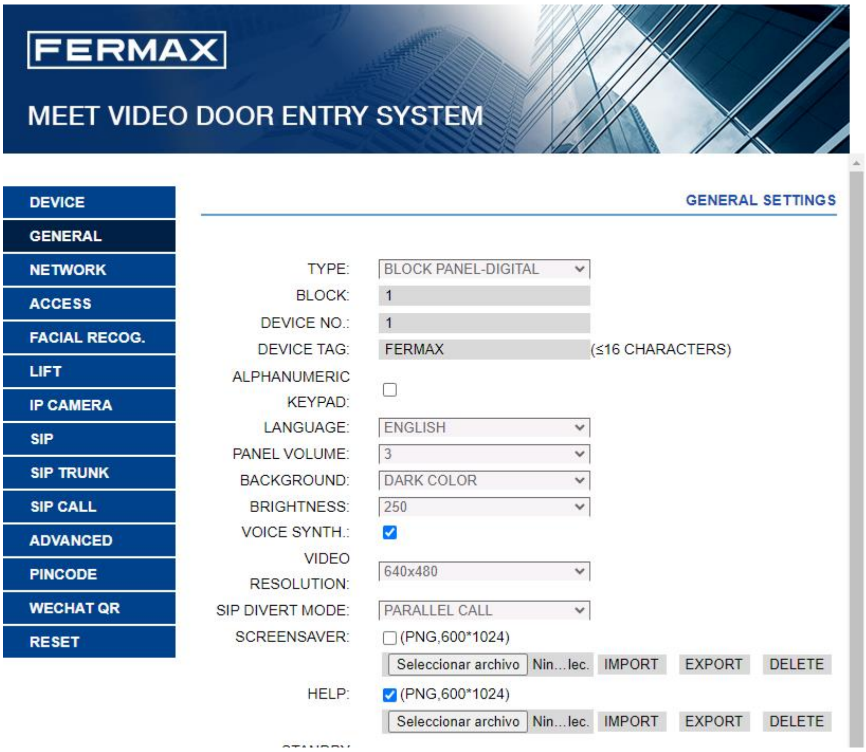
   You must configure the panel as an Individual Panel, assign a block (default 1), a dwelling (default is 101), and a panel number (default 1).
   The Device Tag is important to identify the origin of the call on SIP extensions. The resolution of the camera shall be adjusted to the needs of the terminals used to receive the call.



b. <u>Building Panel</u>

In this example we have used a KIN building entrance panel. The panel must be configured as a Block Panel, assigned a block (default 1) and a panel number (default 1).

The Device Tag is important to identify the origin of the call on SIP extensions. The resolution of the camera shall be adjusted to the needs of the terminals used to receive the call.

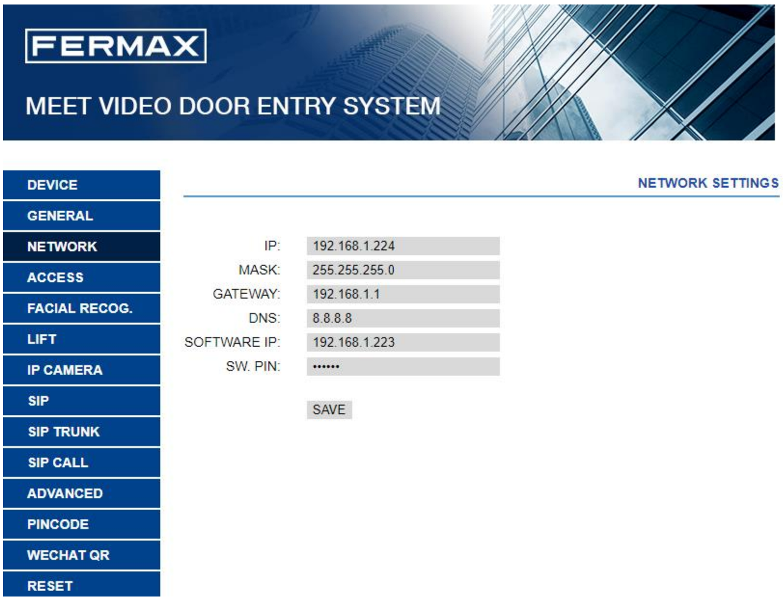


In case of calling more than one extension at the same time, it must be indicated whether the call will be made in parallel or sequentially, calling the next extension if the previous one is not answered within 30 seconds.

2) <u>Network settings</u>

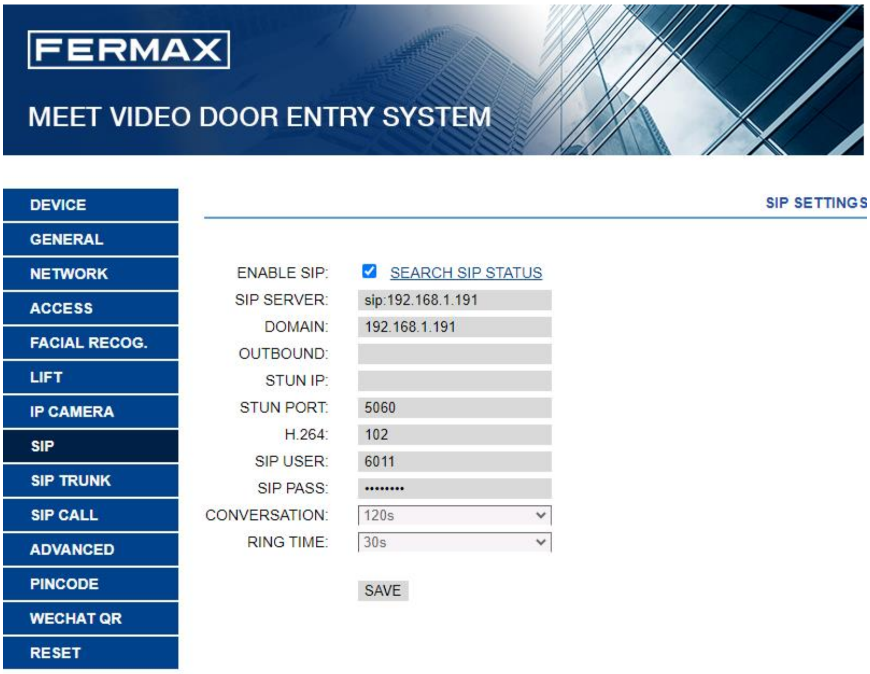
An IP address compatible with the installation's lan will be assigned and the Gateway or router address will be indicated in order to have access to the Internet if you wish to make the call forwarding to the mobile phone. It is necessary to define a DNS server.

The IP address of the software will be left as the default one, unless it is required to manage access control registrations and cancellations for employees (proximity cards or facial recognition). In this case, the IP address of the computer on which the MEET management software (MMS) is installed shall be indicated.



3) <u>SIP PBX configuration</u>

In the SIP Configuration section, the IP of the SIP PBX will be indicated, as shown in the screen below (192.168.1.221). Enter the user (extension number) and the password assigned to the outdoor panel extension (registration password). Next, check if the panel is correctly configured in the switchboard by clicking on the VIEW SIP STATUS link. If REGISTERED does not appear, check the information entered.



- **SIP SERVER**: sip: IP of the PBX
- **DOMAIN**: IP address of the PBX
- **STUN PORT**: UPD port of the control unit, 5060
- **SIP USER**: Extension that we have given to the intercom within the switchboard.
- **PASS SIP**: Password that we have configured in the PBX to the extension.

4) Call extensions configuration
   a. One-way Panel
      Go to the 'SIP CALL' tab and enter the flat number indicated in the 'GENERAL' section (101 in our example) and as NUMBER the SIP extension you want to call (6008 in the example) and click on 'SAVE'.

   b. Building panel

A CSV file will be configured with the assignment of call codes to the extensions to be called. The CSV file format can be downloaded from the SIP CALL section of the panel's web server, EXPORT option.

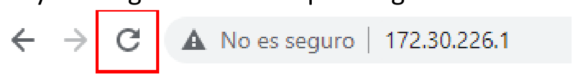
An example is the following:

APARTMENT,NUMBER,			
1,sip:6008@192.168.1.191			
5,sip:6009@192.168.1.191			
3,sip:6010@192.168.1.191,			
4,sip:6011@192.168.1.191;sip:00879892@sip.fermax.com,			

First indicate the code to be dialled and separated by a comma, the extension of the switchboard that is to receive the call when this code is dialled. In the example, dialling 1 will call extension 6008. Dialing 2 will call extension 6009.

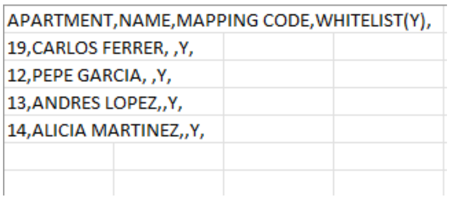
It is possible to call more than one extension by listing several extensions in the same row separated by semicolons. One of these extensions can be a MeetMe licence to be able to call a smartphone via the MeetMe application (example 4). This allows calling a smartphone outside the local network, including video.

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



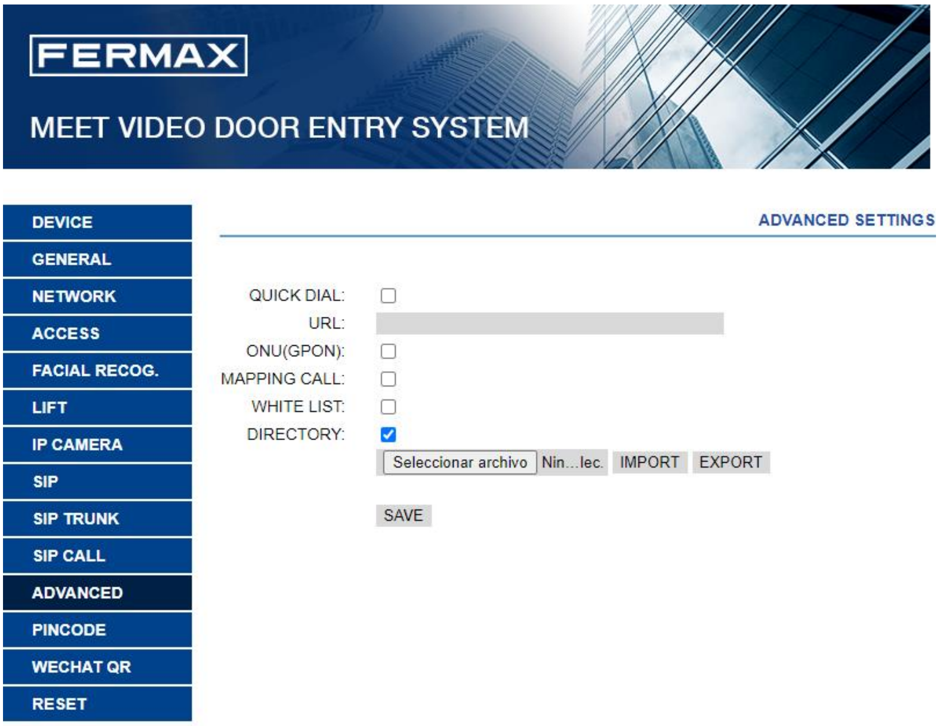
If we want to call by means of the agenda in the case of a KIN panel, the agenda will be created in a CSV file (different from the previous one). The CSV file format can be downloaded from the ADVANCED section of the panel's web server, EXPORT option.

One row is filled in per phonebook item, indicating the call code, Name to be displayed, blank, Y,. Example:



APARTMENT,NAME,MAPPING CODE,WHITELIST(Y),
19,CARLOS FERRER, ,Y,
12,PEPE GARCIA, ,Y,
13,ANDRES LOPEZ,,Y,
14,ALICIA MARTINEZ,,Y,

The file is loaded using the IMPORT option:



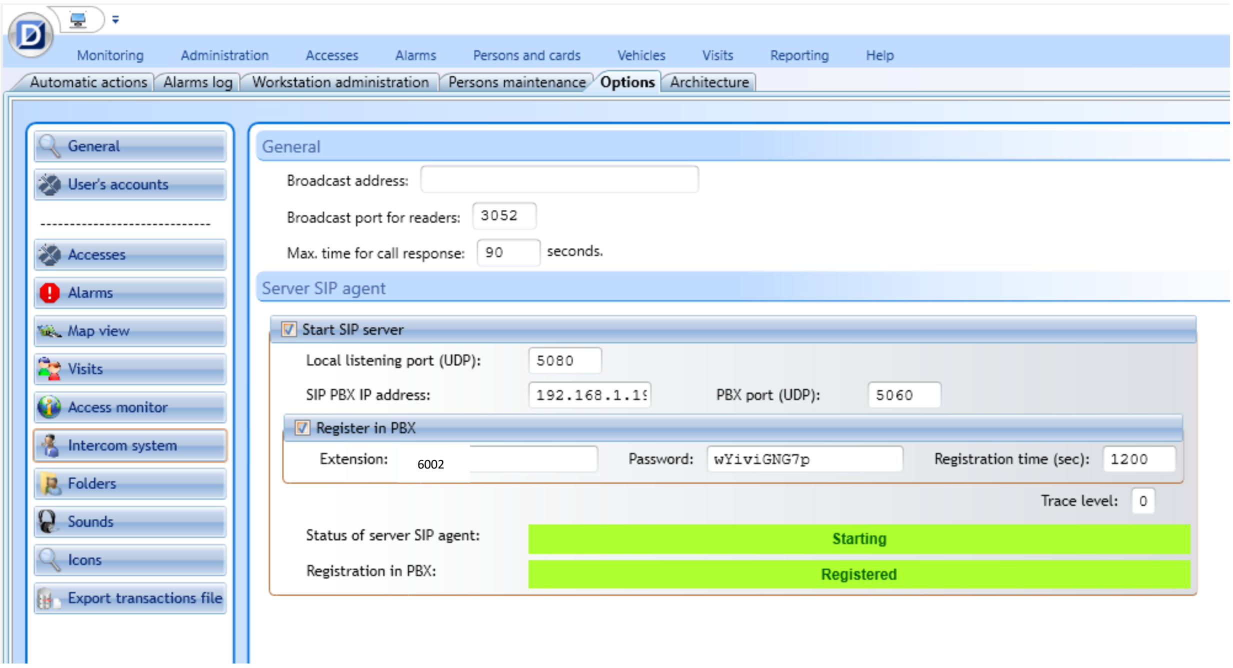
The DIRECTORY option is enabled so that this option appears on the panel.

<u>DASSnet® Client CONFIGURATION</u>

Within the DASSnet® client we have to configure several sections.

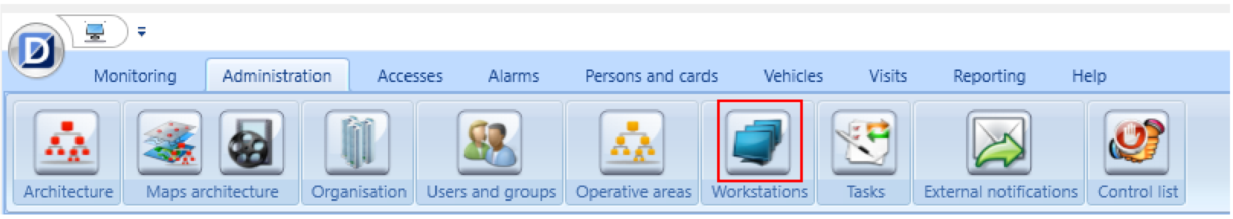
1) SIP Agent Server

Go to options and in the **intercom** section, configure the SIP Agent server.

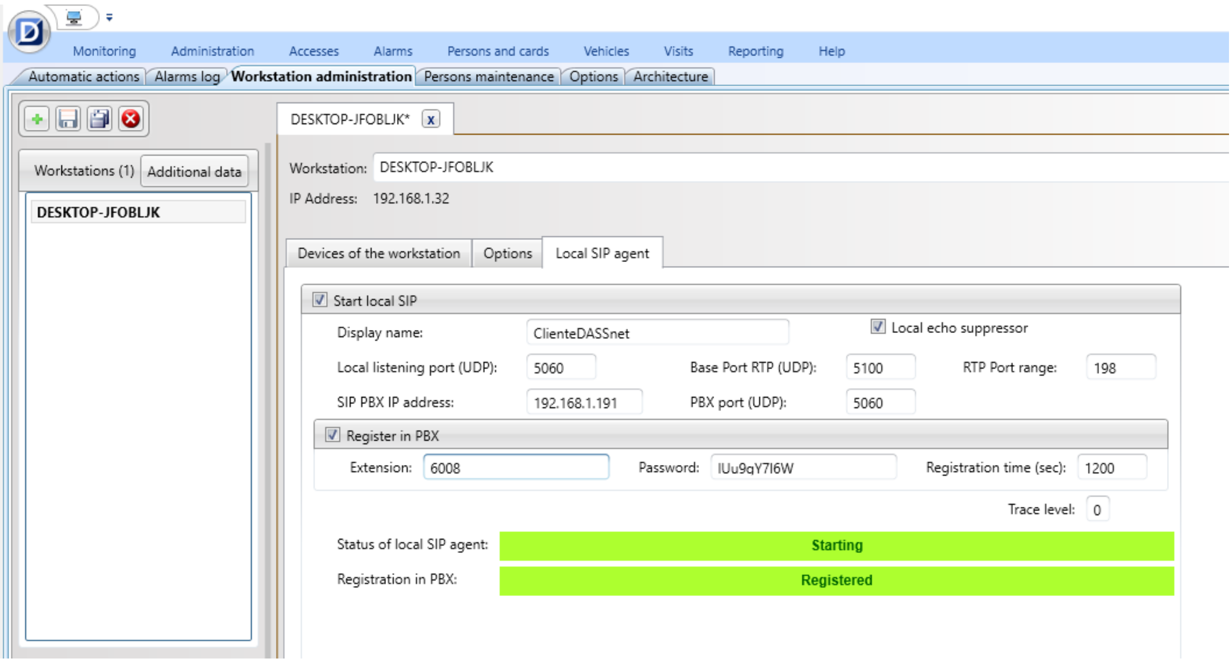


2) Local SIP Agent

Go to Administration - Workstations

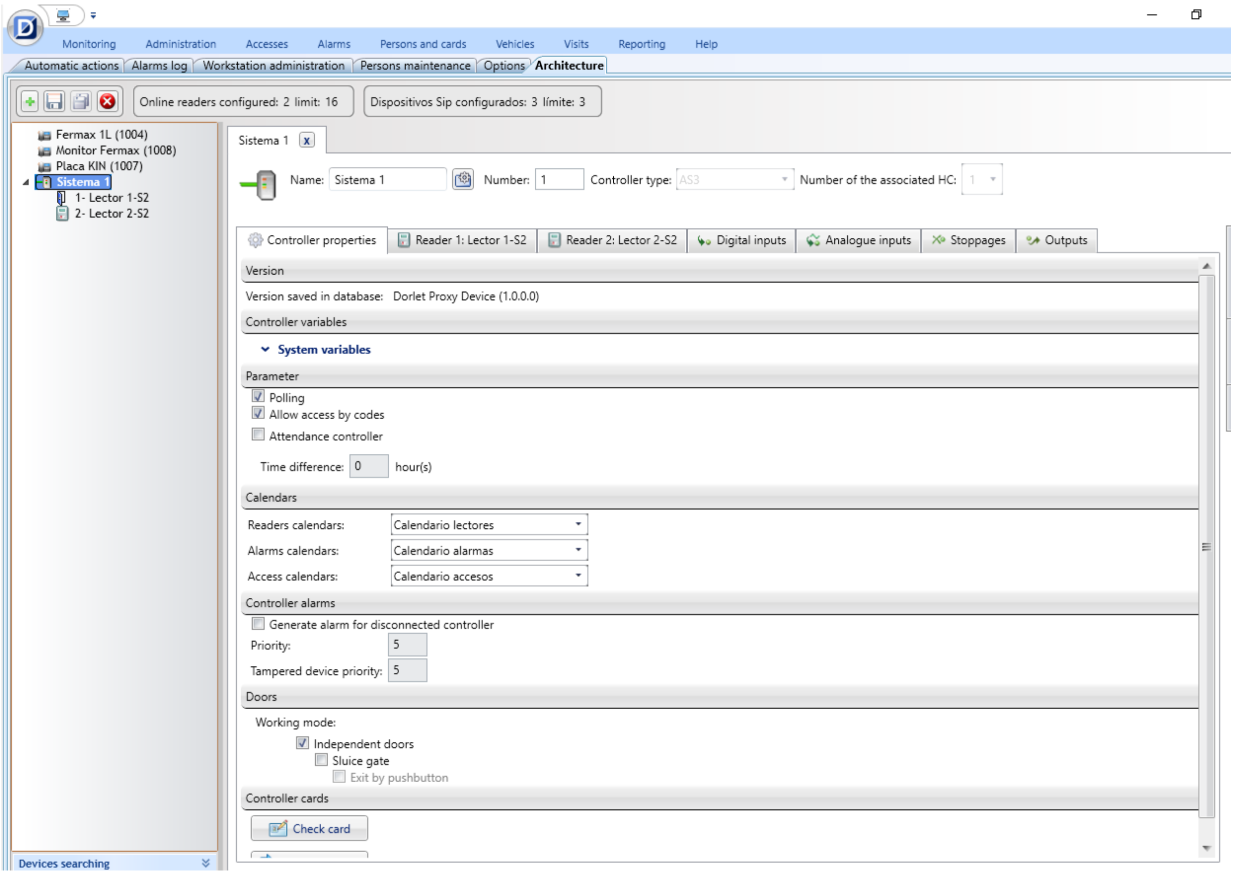


Select the equipment (PC) and in the Local SIP Agent tab, configure the PBX data.

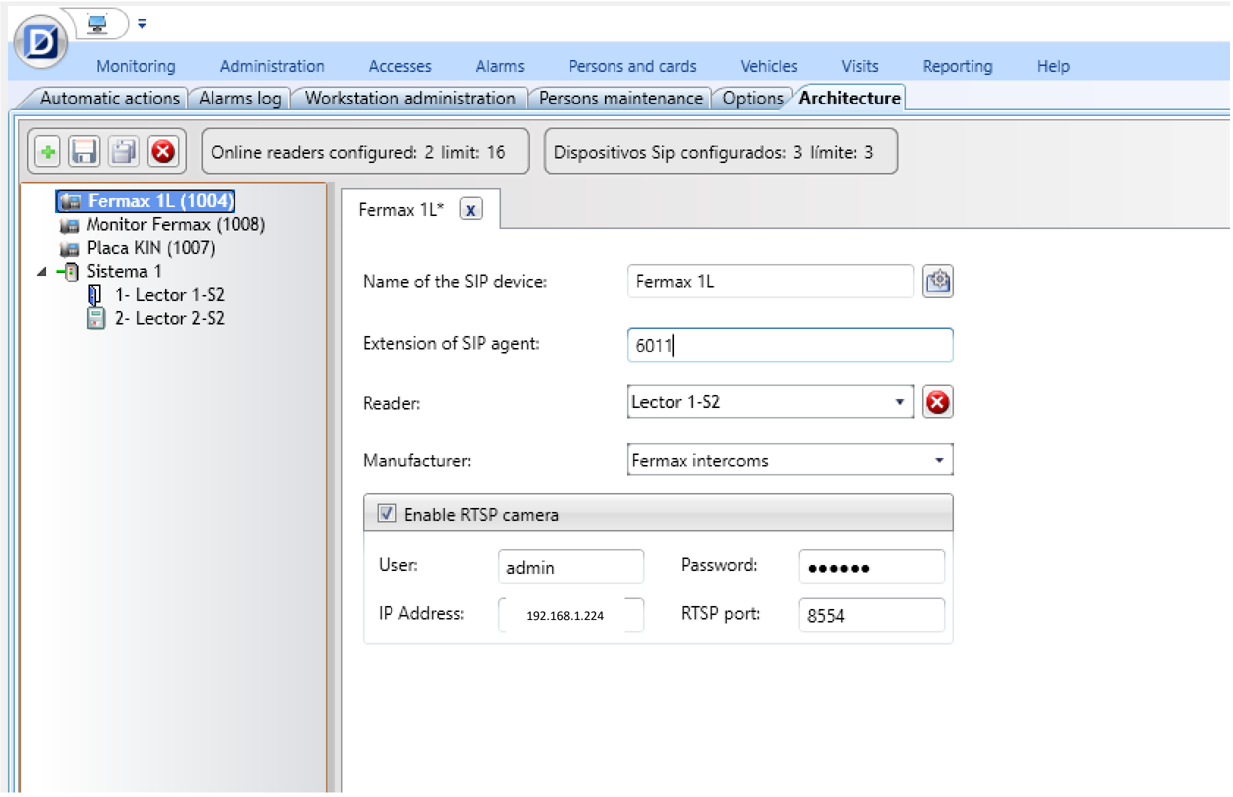


3) Architecture

We create a system and then assign the reader to the outdoor panel in order to be able to control some actions from the outdoor panel.

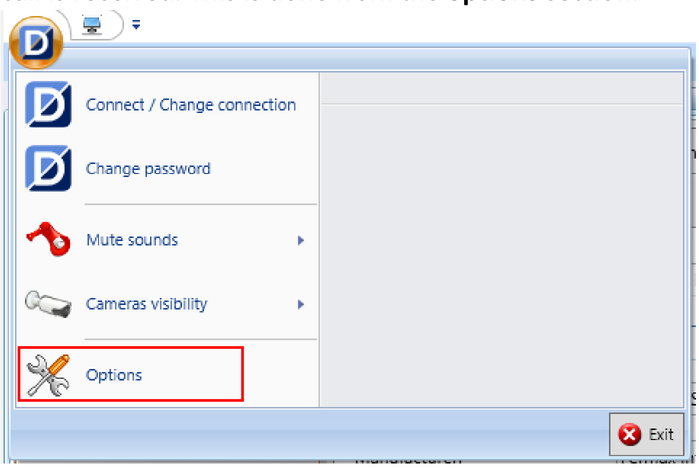


Create a new SIP device (+ New SIP device)

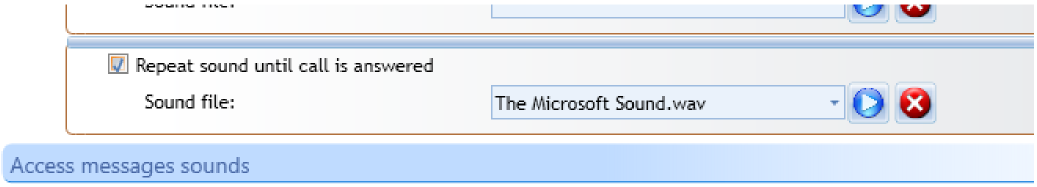


- **SIP device name**: The name of the intercom within DASSnet®.
- **SIP device extension**: The extension previously assigned to the outdoor panel in the PBX.
- **Reader**: This section is optional, but if we assign a reader we will be able to carry out several actions on the reader from the intercom.
- **Manufacturer**: In our case we will select Fermax
- Select Enable RTSP camera and fill in the details
  - **User**: User for accessing the outdoor panel settings
  - **Password**: Password for accessing the outdoor panel settings
  - **IP address**: ip address of the panel
  - **RTSP port**: Port for the video, in this case 8554.

A call sound assigned to the outdoor panel must be configured so that a melody is played when the call is received. This is done from the **options** section:

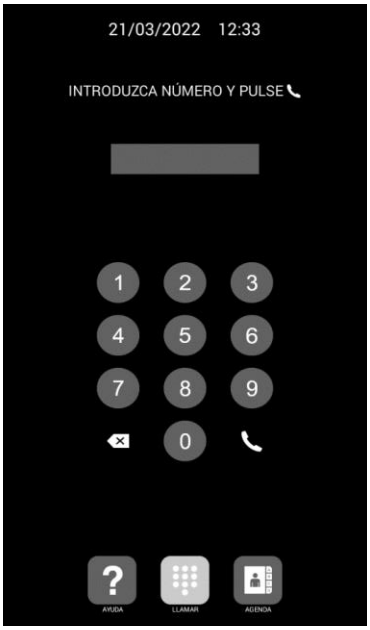


Sounds section. In ‘repeat sound’, activate the option "until answer call" and choose the desired sound, then Save.



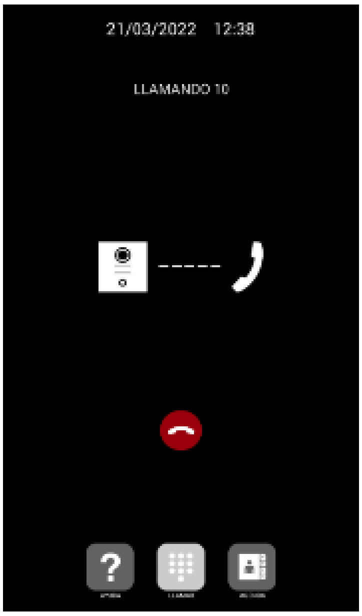
OPERATION

To call a specific extension, press the call button (one-way panel) or enter the associated call code (building panel) and confirm with the bell button (Milo, Marine) or the off-hook icon (KIN). In the case of the KIN or MARINE panel, you also have the option of making the call via the Phonebook, by searching for the name of the receiver and pressing on it.



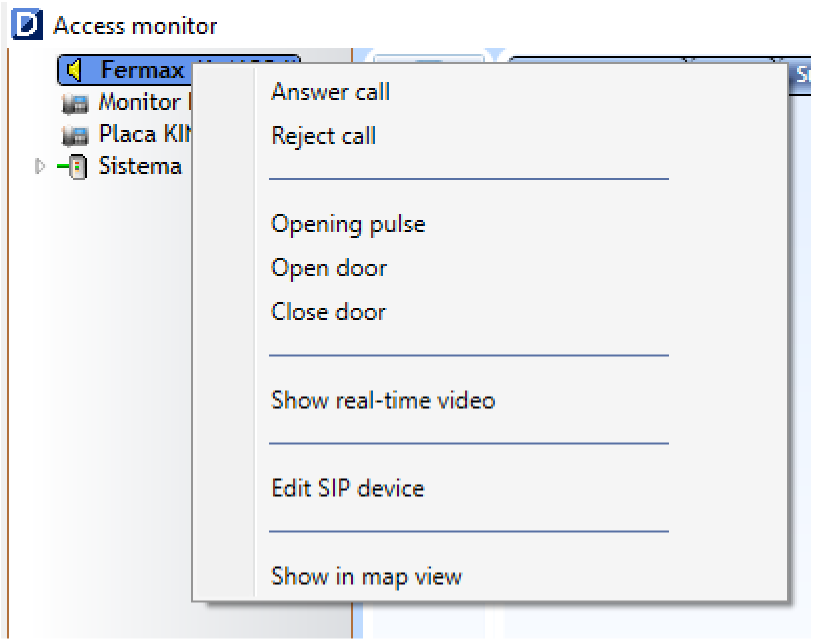
Direct call by code. Call via phonebook.

The panel will generate the call as if it were a house:

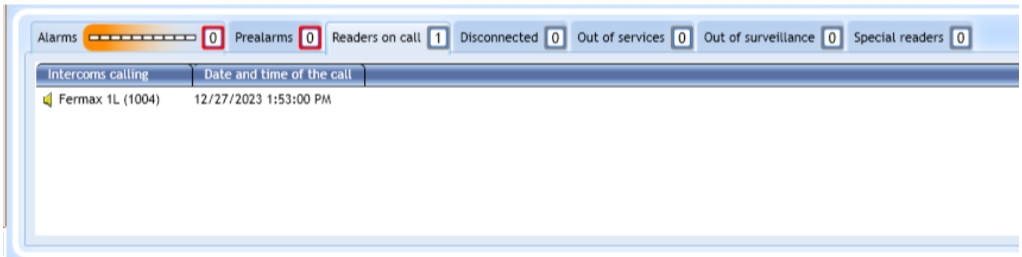


The called extension will indicate the origin of the call by displaying a speaker icon next to the name assigned in the PBX and the chosen sound will be played. You have a maximum of 30 seconds to accept the call.

The call is represented in the access monitor as follows:



In the architecture tree the icon changes when we receive the call and in the lower area, in readers, the call also appears in the information.



If we right click on the name, a menu will appear where we can answer or reject the call.

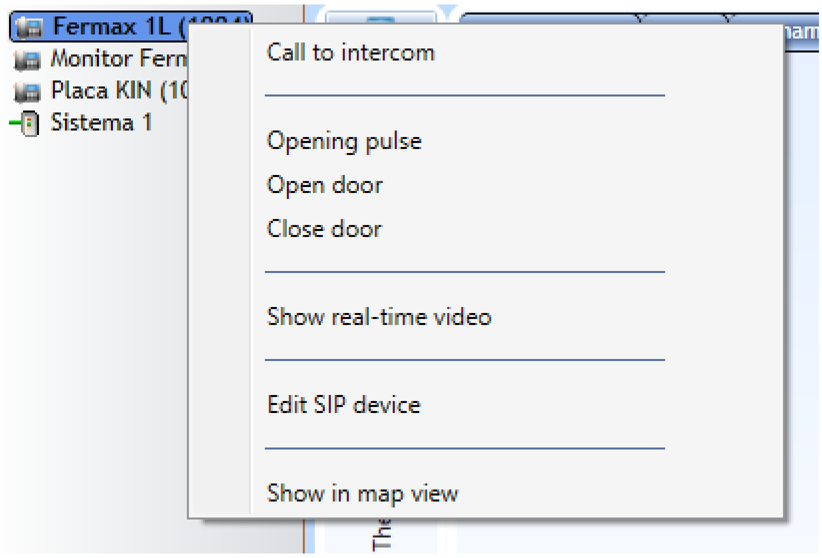
When the call is accepted, two-way audio communication shall be established for up to 120 seconds and the image from the outdoor panel camera shall be displayed.

Once the call is established, we observe that the video and several options are displayed, since we have assigned the SIP device to a reader.

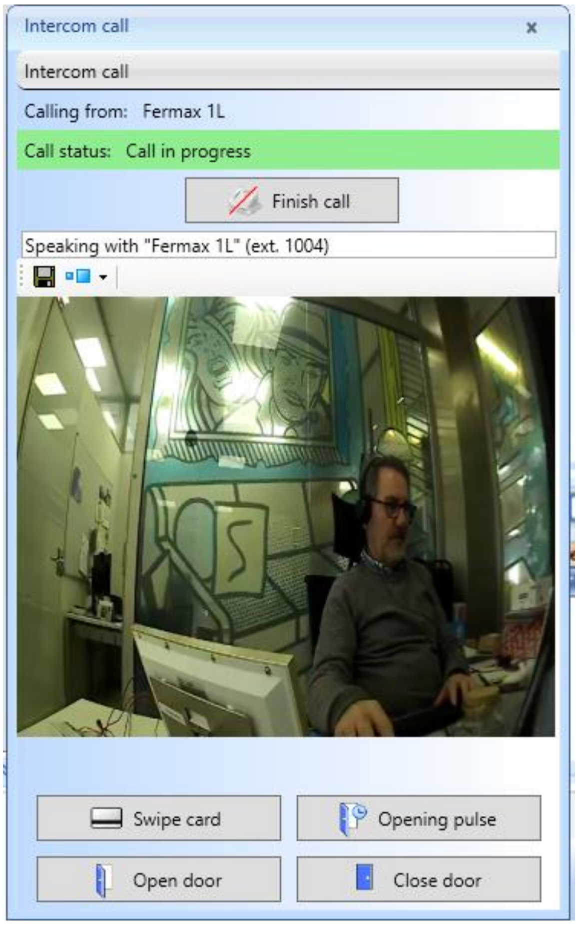
- **Swipe card**: This option opens the menu to select a card stored in the database.
- **Opening impulse**: We perform an opening impulse on the access.
- **Open door**: We perform the action of leaving the door permanently open.
- **Close door**: We perform the action of closing the door.

Auto-on:

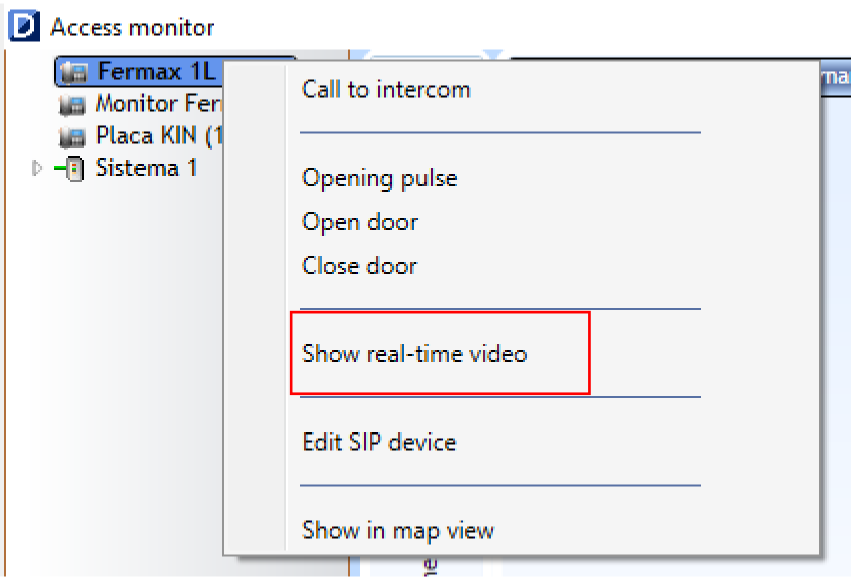
From DASSnet® we can make calls to the intercom by selecting it with the right mouse button and choosing the call option.

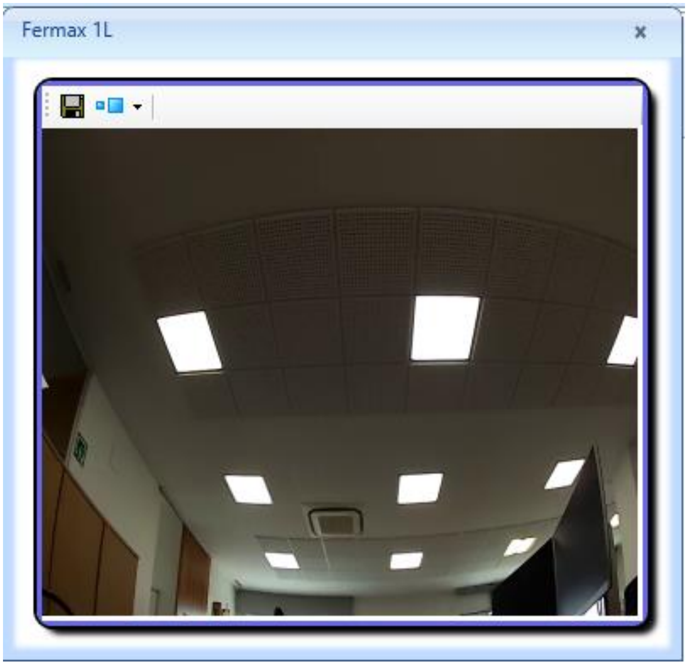


You will have the same options as for incoming calls.



From the previous menu we also have the option to view the camera in real time without having to make the call.





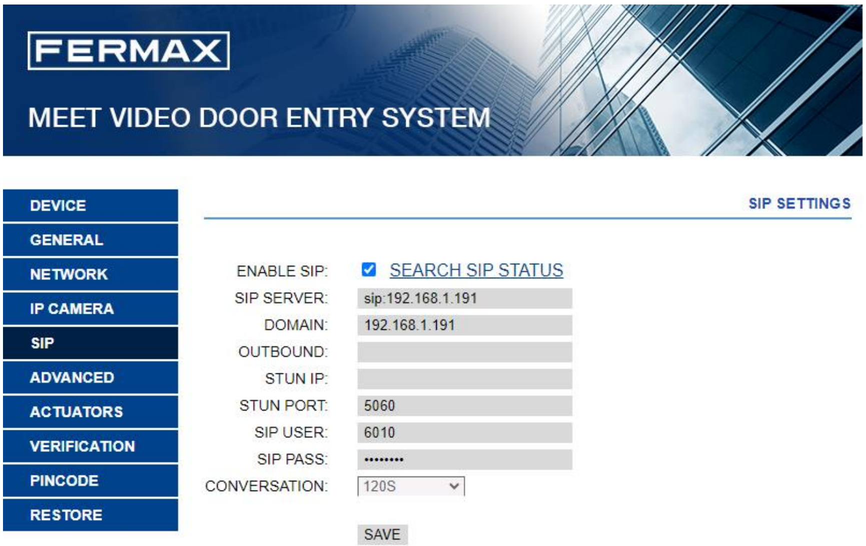
OTHER CONSIDERATIONS

<u>Compatibility with MEET monitor:</u>
If a MEET monitor is available, the call can be received simultaneously at the called extension and at the monitor. The monitor must be assigned the call code dialled on the outdoor panel as the house number. The first one to answer the call will cut off the reception at the other one.

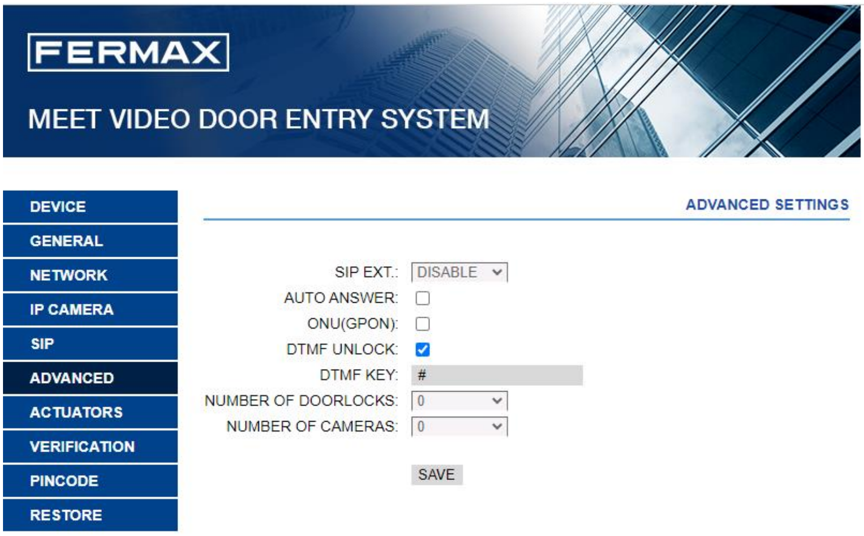
Another option is to configure the monitor in SIP mode as another extension of the switchboard, allowing it to be called from any extension or to call these extensions from the monitor by means of the 'Extercom' option, entering the extension number. **In this mode, the video preview is lost until the call is answered when picking up.**

For this mode, a new extension must be registered in the SIP PBX with the same configuration that was given to the outdoor panel.

Next, to configure the monitor, access the monitor's web server from a browser using its IP address, and configure the credentials of this extension in the SIP tab:



In the ADVANCED option, an opening DTMF tone must be configured in case you want to activate the outdoor panel door release.



<u>Call forwarding to MEETME application:</u>

The outdoor panel can be configured to make the call to the MeetMe application simultaneously or sequentially, with the advantage of being able to receive it wherever the operator is located. It is necessary to purchase a licence for the Meetme call service ref. 1496.

In the configuration of the calling extension to which the outdoor panel is to call, the extension of the SIP client shall be indicated and then, separated by ';' the extension of the licence.

APARTMENT,NUMBER,
1,sip:6008@192.168.1.191
5,sip:6009@192.168.1.191
3,sip:6010@192.168.1.191,
4,sip:6011@192.168.1.191;sip:00879892@sip.fermax.com,

In this example, dialing call code 4 will call extension 6011 and also the MeetMe app that has been registered with the licence 00879892.
The parallel or sequential mode is configured on the outdoor panel: