



CASE STUDY

REMOTE RECEPTION OF MEET CALLS IN A PC

Description

This document describes how to configure a MEET panel for receiving calls in a PC using the SIP divert function through the FERMAX MEET ME cloud

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INTRODUCTION

Sometimes we are required for the possibility of receiving calls from a MEET panel in a PC, instead of a MEET monitor specially in offices and/or commercial spaces.

In this Case Study we are going to explain how to implement this function by means of a SIP VoIP client application installed in a PC connected to the internet. This PC can be located in the same building where the panel is or can be installed in any remote location as well.

There exist several client SIP VoIP applications, many of them are free. For this Case Study we are going to use the LINPHONE client APPLICATION, that can be downloaded from the developer web for free under a GNU GPL licence.

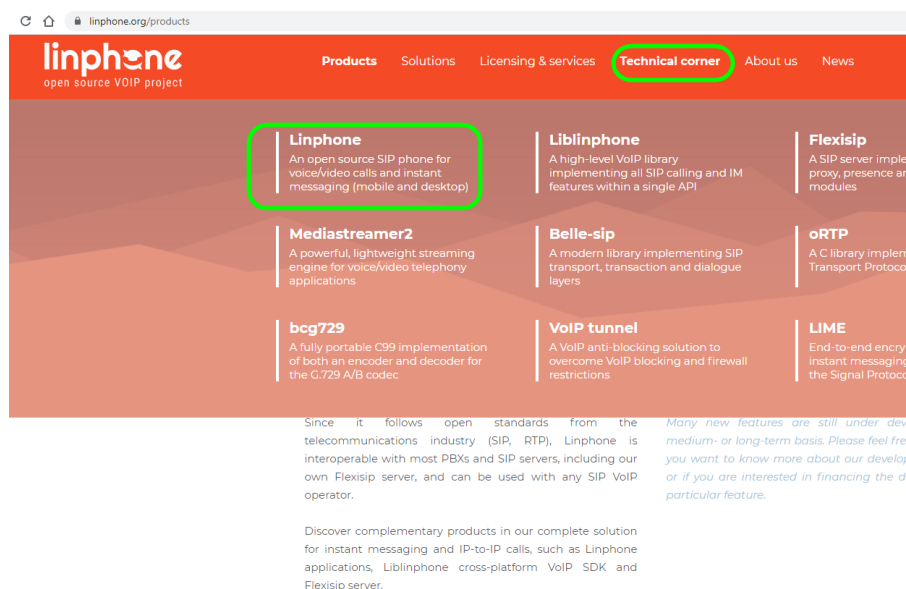
Basically this operation consists in the installation of the LINPHONE client in a PC and register it in the FERMAX MEET ME server in the cloud, so the PC receives the calls through this server, in a similar way than a smartphone with the MEET ME APP installed does.

In addition to the MEET panel, a Ref. 1496 MEET ME LICENCE is required for register the PC in the FERMAX MEET ME server.

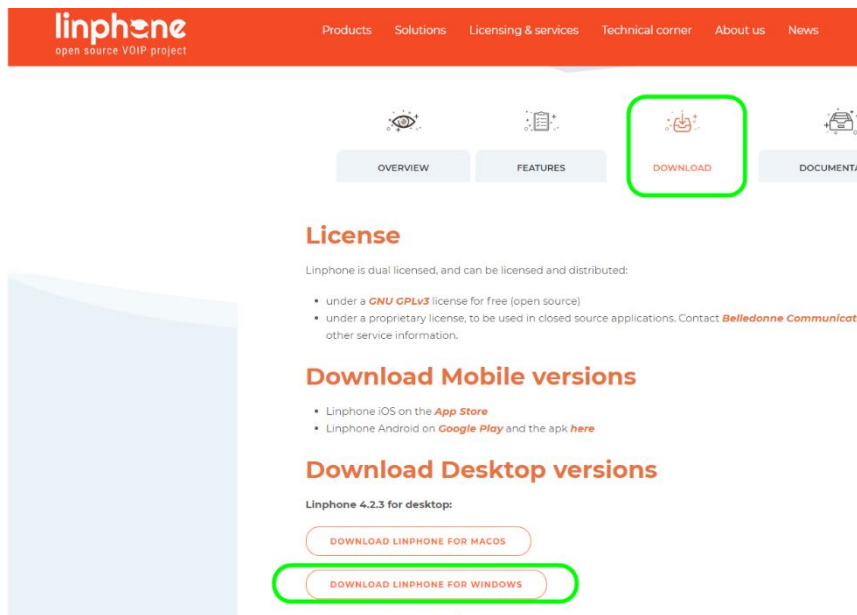
Calls from the panel can be received in 8 devices simultaneously (PC's and/or smartphones)

HOW TO INSTALL THE LINPHONE CLIENT

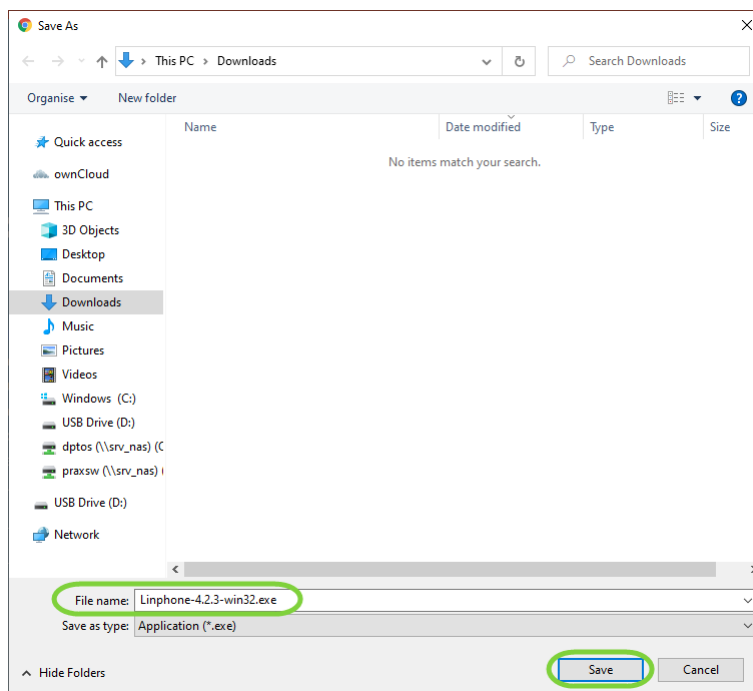
Go to www.linphone.org and download the **Linphone-4.2.3-win32.exe** application.



I. Access to the download section for downloading the application.



II. Select a folder in the PC to save it



III. Once downloaded the **Linphone-4.2.3-win32.exe** file, click on it for installing LINPHONE in your PC.

LINPHONE SETTINGS

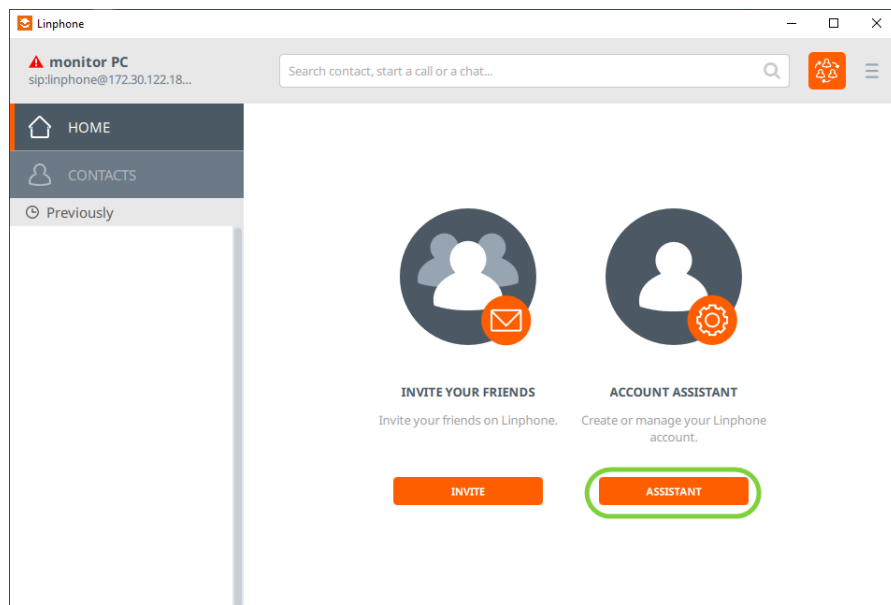
REGISTER LINPHONE IN THE MEET ME SERVER

A Ref. 1496 MEET ME LICENCE is required to allow the simultaneous reception of a call in a maximum of 8 different devices (PC's and/or smartphones).

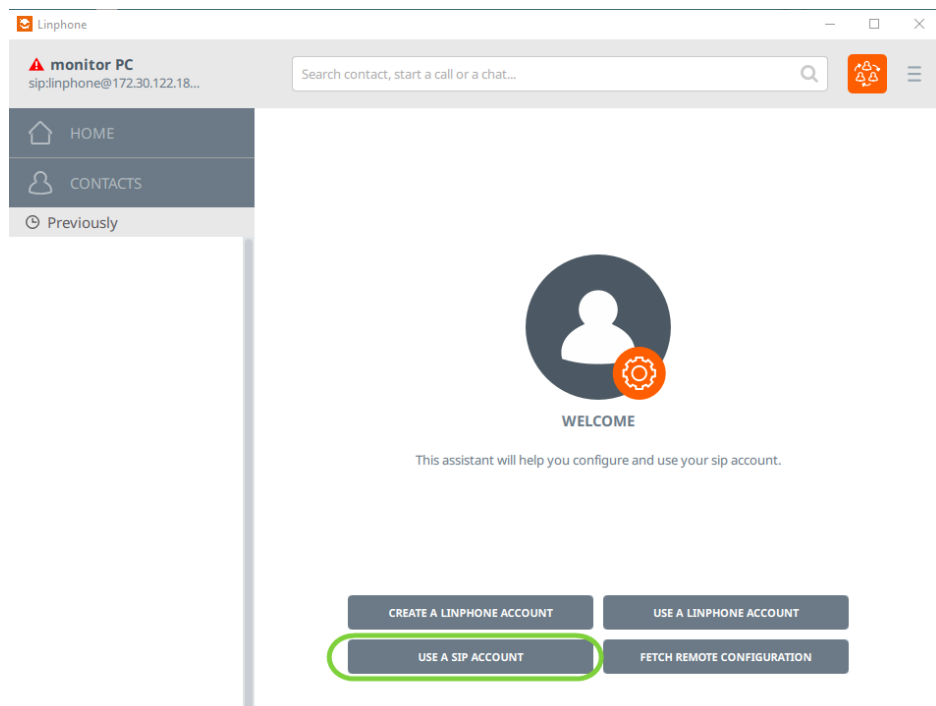
The PC has to be configured and connected to the internet, and the corresponding router will not have any restriction for streaming or SIP protocols.

The steps are as follow:

I. Arrange the LINPHONE application and use the assistant:



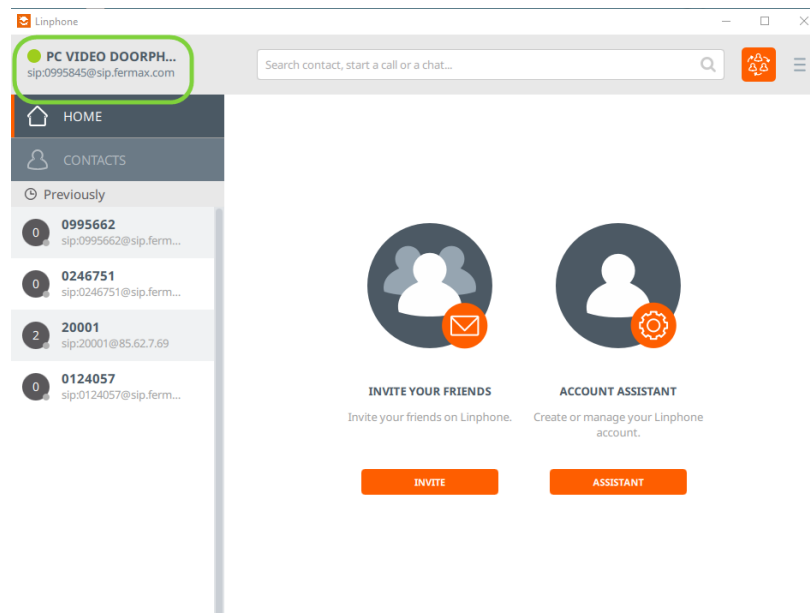
II. select USE A SIP ACCOUNT:



- III. Enter the MEET ME domain name (sip.fermax.com) and the Ref. 1496 MEET ME licence credentials (username y password).
Select UDP TRANSPORT PROTOCOL and design a name for it (optional), to identify the account.
Finally, select USE to register this account in the MEET ME server.

The screenshot shows the Linphone application window with the 'USE A SIP ACCOUNT' form. The form fields are: Username (0995845), Display name (optional) (PC VIDEO DOORPHONE), SIP Domain (sip.fermax.com), Password (masked with dots), and Transport (UDP). The 'USE' button is highlighted with a green border. The left sidebar shows 'HOME', 'CONTACTS', and 'Previously'.

- IV. Select the new SIP account and check that it is registered. A green dot will appear, otherwise check the entered data in PREFERENCES -> SIP accounts or delete it and create again.

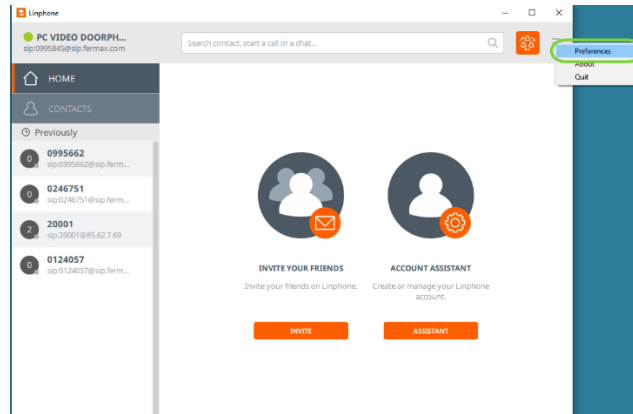


ENABLE H.264 CODEC

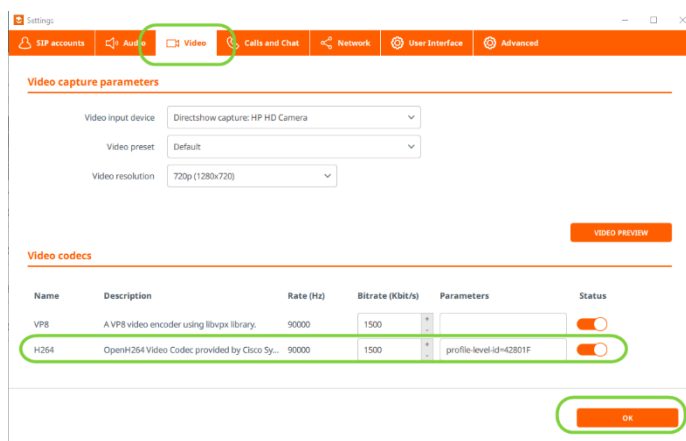
Enabling H.264 CODEC in PC is required for a correct performance of the application.

There are the steps to follow:

I. Select “preferences”

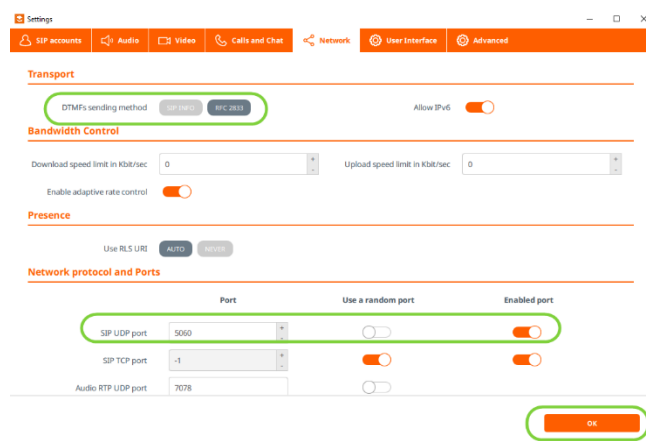


II. Select Video → H.-264 → OK



OTHER CONFIGURATIONS

Door opening in MEET panels requires a “#” DTMF (Dual Tone Multifrequency) digit. Be aware that LINPHONE has this parameter correctly configured and also check that SIP UDP port 5060 is enabled.



MEET DIGITAL OR 1L PANEL SETTINGS

The MEET panel has to be connected to a LAN and have access to the internet. It is not required the panel be connected to the same LAN than the PC is.

NETWORK SETTINGS

Configure the panel to have access to the internet, assigning an IP address to it and the corresponding GATEWAY and a valid DNS.

The screenshot shows the 'NETWORK SETTINGS' page of the FERMAX MEET VIDEO DOOR ENTRY SYSTEM. On the left is a vertical menu with options: DEVICE, GENERAL, NETWORK (highlighted), ACCESS, FACIAL RECOG., IP CAMERA, SIP, SIP TRUNK, SIP CALL, ADVANCED, PINCODE, QR ACCESS, RESET, and LOG OUT. The main area contains the following fields: IP: 192.168.1.111, MASK: 255.255.255.0, GATEWAY: 192.168.1.1, DNS: 8.8.8.8, SOFTWARE IP: 192.168.1.200, and SW. PIN: *****. A 'SAVE' button is located at the bottom right of the settings area.

REGISTER THE PANEL IN THE MEET ME SERVER

the panel should have a MEET ME licence label attached to it.

Please make the following configurations:

The screenshot shows the 'SIP SETTINGS' page of the FERMAX MEET VIDEO DOOR ENTRY SYSTEM. The left menu is identical to the previous screenshot, with 'SIP' highlighted. The main area contains the following fields: ENABLE SIP: checked, SEARCH SIP STATUS (with a green dot and 'SIP REGISTERED' text), SIP SERVER: sip.sip.fermax.com, DOMAIN: sip.fermax.com, OUTBOUND: (empty), STUN IP: 192.168.1.233, STUN PORT: 5060, H.264: 102, SIP USER: 0115840, SIP PASS: ***** (masked), CONVERSATION: 120s (dropdown), and RING TIME: 30s (dropdown). A 'SAVE' button is at the bottom right.

- **ENABLE SIP:** selected
- **SIP SERVER:**
sip:sip.fermax.com
- **DOMAIN:**
sip.fermax.com
- **SIP USER:**
User indicated in the MEET ME label attached to the panel.
- **PASS SIP:**
password indicated in the MEET ME label attached to the panel.

Click on SIP STATUS to find out if the panel is correctly registered in the server. An indication REGISTERED shall appear. Otherwise verify that the data has been correctly inserted, and the internet configuration is OK.

MAKE A SIP CALL ENTRY

Follow instructions in the panel's INSTALLER MANUAL to create a SIP CALL entry, to say a reference of the number to dial in the panel with the corresponding MEET ME licence registered in the LINPHONE client application, with the format **sip:licence_number@sip.fermax.com**.

The screenshot shows the FERMAX MEET VIDEO DOOR ENTRY SYSTEM web interface. On the left is a vertical menu with options: DEVICE, GENERAL, NETWORK, ACCESS, FACIAL RECOG., IP CAMERA, SIP, SIP TRUNK, SIP CALL, ADVANCED, PINCODE, QR ACCESS, RESET, and LOG OUT. The 'SIP CALL' option is highlighted. The main area is titled 'SIP CALL SETTINGS' and contains a table with columns: APARTMENT, NUMBER, APARTMENT, NUMBER, APARTMENT, NUMBER. The first row has values: 222, sip:@192.168.1.200, 100, 099584@sip.fermax.com, and two empty cells. The cell containing '099584@sip.fermax.com' is circled in green. Above the table are buttons for 'Choose file', 'No file chosen', 'IMPORT', and 'EXPORT'.

| APARTMENT | NUMBER | APARTMENT | NUMBER | APARTMENT | NUMBER |
|-----------|--------------------|-----------|-----------------------|-----------|--------|
| 222 | sip:@192.168.1.200 | 100 | 099584@sip.fermax.com | | |

In the case of the panel is MEET 1L, configure it as BLOCK. PANEL 1. In this case, when someone press the call button a call to APARTMENT 10001 is always generated.

Finally, create a SIP CALL entry that refers APARTMENT 10001 with the corresponding licence in the LINPHONE client application, with the format **sip:licence:number@sip.fermax.com**-

The screenshot shows the FERMAX MEET VIDEO DOOR ENTRY SYSTEM web interface. On the left is a vertical menu with options: DEVICE, GENERAL, NETWORK, ACC, SIP, SIP TRUNK, SIP CALL, ADVANCED, PINCODE, RESTORE, and LOGOUT. The 'SIP CALL' option is highlighted. The main area is titled 'SIP CALL SE' and contains a form with fields for 'APARTMENT' (value: 0), 'NUMBER', and 'DELETE' (checkbox). Below the form is a 'SAVE' button. Below the form is a table with columns: APARTMENT, NUMBER, APARTMENT, NUMBER, APARTMENT, NUMBER. The first row has values: 10001, sip:0995845@sip.fermax.com, and three empty cells. The cell containing 'sip:0995845@sip.fermax.com' is circled in green.

| APARTMENT | NUMBER | APARTMENT | NUMBER | APARTMENT | NUMBER |
|-----------|----------------------------|-----------|--------|-----------|--------|
| 10001 | sip:0995845@sip.fermax.com | | | | |

OPERATION

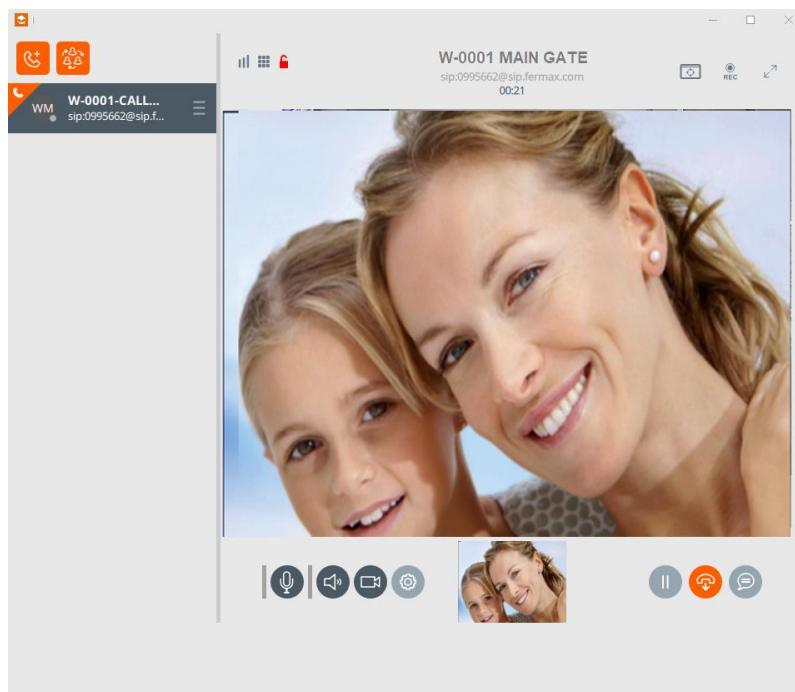
For receiving calls, the PC has to be ON and with the LINPHONE client application running. It is possible to run this application in the background, while the PC is busy with other applications or programs. When someone calls from the MEET panel, a ringtone will sound in the PC and a pop-up window will appear in the screen.

There are three options:

- Answer with video
- Answer without video (audio only)
- Finish/reject the call



Once a call is answered (with or without audio) a new pop-up will appear with the image from the panel's camera and a panel with several functions to use during the conversation (mute, hide image, speaker off, etc.).



- It is possible to hold the conversation by means of the PAUSE icon. The panel will play a "music on hold".
- It is possible to deactivate the outgoing audio (mute) or the incoming audio (speaker).

- The maximum length is defined in the panel configuratio: 30" if no audio has been stablished, and 120" if the call has been answered.
- There is possible to open the door selecting the KEYPAD and then dialling #.

