



CASE STUDY

RECEPTION OF MEET CALLS IN A PC WITH MICROSIP

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 MicroSIP client APPLICATION, that can be downloaded from the developer web for free under a GNU GPL licence. <https://www.microsip.org/>

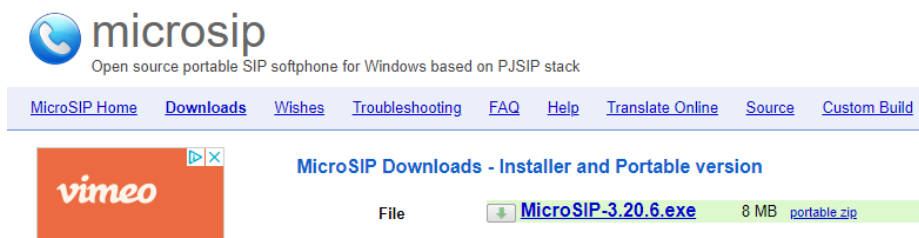
There are two case uses that depend on the communication between panel and PC: first one is when they are located in different LANs and internet is used to communicate each other (SIP mode) and second one when both are located in the same LAN (P2P mode).

In the first case use MicroSIP must be registered 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 this case, 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 MICROSIP CLIENT

Go to <https://www.microsip.org/downloads> and download the **MicroSIP-3.20.6.exe** (or currently available) application for Windows OS.



Application will be downloaded automatically in Download folder.

Once downloaded the **MicroSIP-3.20.6.exe** file, click on it for installing MICROSIP in your PC.

SIP MODE CASE USE (DIFFERENT LAN)

CONFIGURE PANEL

The steps are as follow:

1) Panel is configured in SIP mode with credential provided in the label stucked on it.

DEVICE
GENERAL
NETWORK
ACCESS
FACIAL RECOG.
IP CAMERA
SIP
SIP TRUNK
SIP CALL
ADVANCED
PINCODE
QR ACCESS
RESET

ENABLE SIP: [SEARCH SIP STATUS](#) • SIP REGISTERED
 SIP SERVER: sip.sip.fermax.com
 DOMAIN: sip.fermax.com
 OUTBOUND:
 STUN IP:
 STUN PORT: 5060
 H.264: 102
 SIP USER: 0011825
 SIP PASS:
 CONVERSATION: 120s
 RING TIME: 30s

- **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.

After configuration SIP status test is done by clicking on link. SIP REGISTERED in green must be shown.

2) The list of associations between call code and SIP extension is uploaded. For that, an Excel file is created exporting from SIP CALL tab and filling the call code and sip extension separated by ',':

	A	B	C
1	Apartment,Number,		
2	1,sip:0995738@sip.fermax.com		
3	2,sip:1@192.168.1.220		
4	4,sip:0995738@sip.fermax.com		
5			

This Excel file is imported with the IMPORT option:

DEVICE
GENERAL
NETWORK
ACCESS
FACIAL RECOG.
IP CAMERA
SIP
SIP TRUNK
SIP CALL
ADVANCED

Seleccionar archivo						Nin...ado						IMPORT						EXPORT					
APARTMENT		NUMBER				APARTMENT		NUMBER				APARTMENT		NUMBER									
1		sip:0995738@sip.fermax.com				2		sip:1@192.168.1.220				4		sip:0									

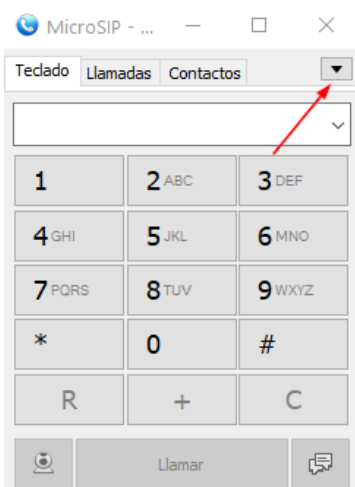
If there is a Meet monitor with the same call code (APARTMENT) when calling it will ring in parallel with the SIP extension.

CONFIGURE MICROSIP APP

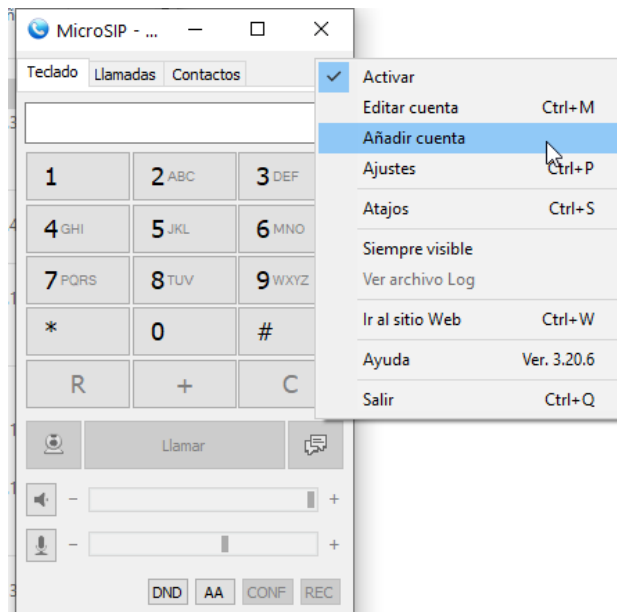
A Ref. 1496 MEET ME LICENCE is required to allow the simultaneous reception of a call in a maximum of 8 different devices (PC's and/or smartphones).

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.

1) Create account. Press on down arrow



and select option **Add Account**



Enter MeetMe server and account details. Purchaed MeetMe licence must be used.

Cuenta

Nombre de cuenta: MEETME

Servidor SIP: sip.fermax.com

Proxy SIP:

Usuario *: 0995738

Dominio *: sip.fermax.com

Iniciar sesión:

Contraseña: *****

Nombre para mostrar: PC

Núm. buzón de voz:

Prefijo de Marcación:

Plan de marcado:

Hide Caller ID

Comunicación cifrada: Desactivado

Transporte: UDP

Dirección pública: Automático

Refresco de Registro: 300 Mantener Conexión: 15

Publicar presencia

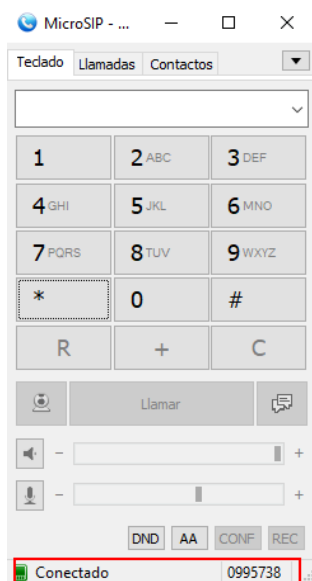
Permitir reescritura IP

ICE

Desactivar temporiz. de sesión

Guardar Cancelar

If it is well configured the app shows 'Connected' and SIP extension



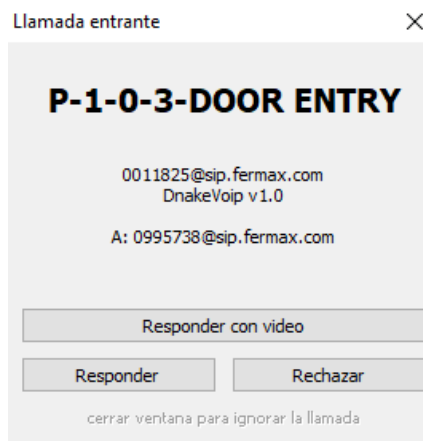
AVAILABLE FUNCTIONS

1) CALL FROM PANEL TO PC

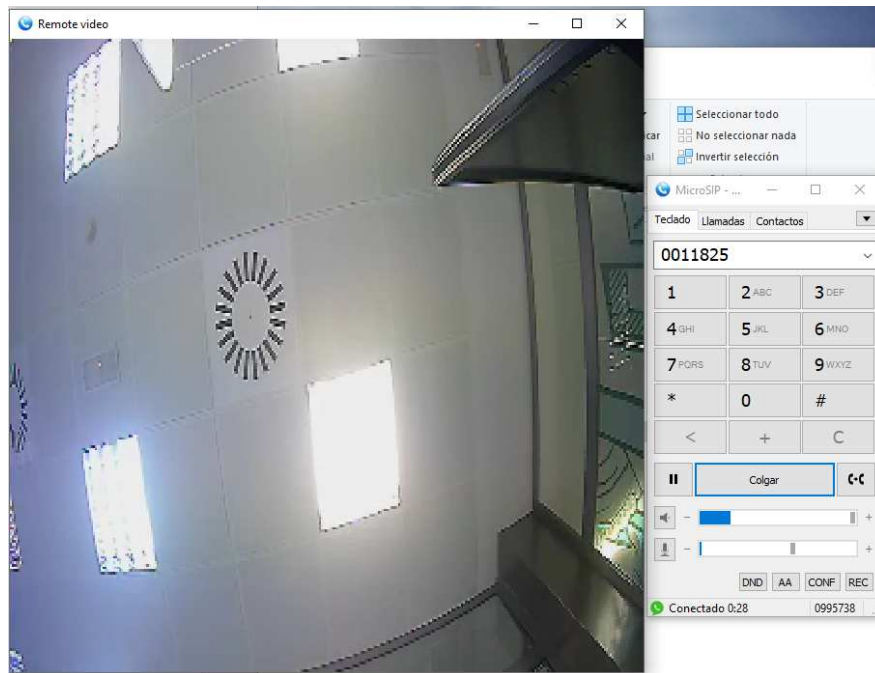
For receiving calls, the PC has to be ON and with the MICROSIP client application running. It is possible to run this application in the background, while the PC is busy with other applications or programs. When someone calls from the MEET panel, a ringtone will sound in the PC and a pop-up window will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

There are three options:

- Answer with video
- Answer (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 the accessory keypad with several functions to use during the conversation (mute, pause, speaker off, etc.). *Video is shown after 2"



- There is possible to hold the conversation by means of the PAUSE icon.
- There is possible to deactivate the outgoing audio (mute) or the incoming audio (speaker).
- The maximum length is defined in the panel configuration: 30" if no audio has been established, and 120" if the call has been answered.
- There is possible to open the door selecting the KEYPAD and then dialling # or *.
- There is possible to divert the call to another PC.
- If artifacts are shown on video try to reduce resolution on panel's camera.

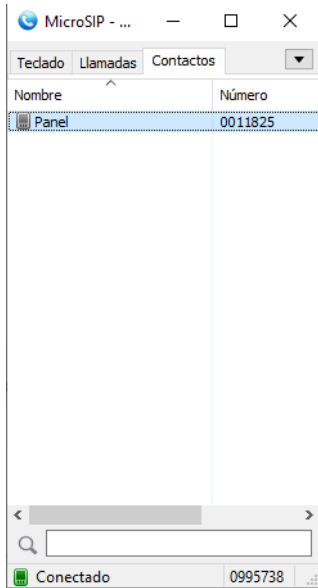
2) CALL FROM PC TO PANEL

There are different ways:

- Select panel from the events list. It is possible to call back to the panel. It is established an audio conversation (no video).

P-1-0-3-DOOR ENTRY	0011825	8:04:38	2:00
P-1-0-3-DOOR ENTRY	0011825	8:03:54	
P-1-0-3-DOOR ENTRY	0011825	28/07/2021 14:22:30	0:09

- Dialling the SIP extension of the panel.
- Creating one name in the contact list:



Conversation is limited to 30”.

2) SIMULTANEOUS CALL FROM PANEL TO PC AND MEET MONITOR

For this case the monitor must have assigned the apartment number with the same code used in the call.

- Both PC and monitor ring at the same time.
- The first that answers closes the ringing in the other device.
- Conversation and timing are the same of the first case.

P2P MODE CASE USE (COMMON LAN)

CONFIGURE PANEL

The steps are as follow:

1) Panel is configured with SIP mode disabled.

DEVICE	SIP SETTINGS
GENERAL	
NETWORK	
ACCESS	
FACIAL RECOG.	
IP CAMERA	
SIP	ENABLE SIP: <input type="checkbox"/> SIP SERVER: sip:sip.fermax.com DOMAIN: sip.fermax.com OUTBOUND: STUN IP: STUN PORT: 5060 H.264: 102 SIP USER: 0011825 SIP PASS: CONVERSATION: 120s RING TIME: 30s SAVE
SIP TRUNK	
SIP CALL	
ADVANCED	
PINCODE	
QR ACCESS	

2) Define in SIP CALL option the IPs of receivers assigned to different call numbers. Example 2 in previous Excel.

3) Activate QUICK DIAL in ADVANCED tab with IP of PC:

DEVICE	ADVANCED SETTINGS
GENERAL	
NETWORK	
ACCESS	
FACIAL RECOG.	
IP CAMERA	
SIP	
SIP TRUNK	
SIP CALL	
ADVANCED	

QUICK DIAL:

URL: sip:1@192.168.1.220

ONU(GPON):

MAPPING CALL:

WHITE LIST:

DIRECTORY:

Seleccionar archivo Nin...ado IMPORT EXPORT

SAVE

CONFIGURE MICROSIP

Enable local account Settings page:

Ajustes

Modo de llamada simple

Sonido de llamada: []

Dispositivo de llamada: Predeterminado

Altavoz: Predeterminado

Microfono: Predeterminado

Amplificar microfono

Ajuste de nivel por software

Códec disponibles: Opus 24 kHz, G.722.16 kHz, G.722.1 16 kHz, G.722.1 32 kHz, G.723 8 kHz, G.729 8 kHz, GSM 8 kHz

Códec activados: G.711 A-law, G.711 u-law

VAD EC Opus 2ch Forzar codec en llamadas entrantes

Deshabilitar videollamada

Camara: Predeterminado

Codec de video: Predeterminado

H.264 H.263 VP8 Tasa bits video: 256

Puerto origen: 0 rport puertos RTP: 0 - 0

Nombre del servidor: [] DNS SRV

Servidor STUN: []

Grabacion de Llamada: C:\Users\carlosf\Desktop\Recordings []

MP3 WAV REC

Metodo DTMF: Automático

Autorespuesta: Boton de control

Reenvío de llamadas: No [] 0 segui

Denegar llamada entrante: Boton de control

Directorio de usuarios: []

Acción de lista: Predeterminado

Manejar botones multimedia Soporte para auriculares

Eventos Sonoros Activar archivo log

Traer al frente en llamada entrante Activar cuenta local

Pos. aleat. vent. contestacion Enviar informe de error

LLamada en Espera Deshabilitar mensajería

Comprobar actualizaciones: Semanalmente

Guardar Cancelar

A new account is created

Cuenta ×

Nombre de cuenta 2

Servidor SIP 2

Proxy SIP 2

Usuario 2

Dominio 2

Iniciar sesión 2

Contraseña 2

[Mostrar contraseña](#)

Nombre para mostrar 2

Núm. buzón de voz 2

Prefijo de Marcación 2

Plan de marcado 2

Hide Caller ID 2

Comunicación cifrada 2

Transporte 2

Dirección pública 2

Refresco de Registro Mantener Conexión 2

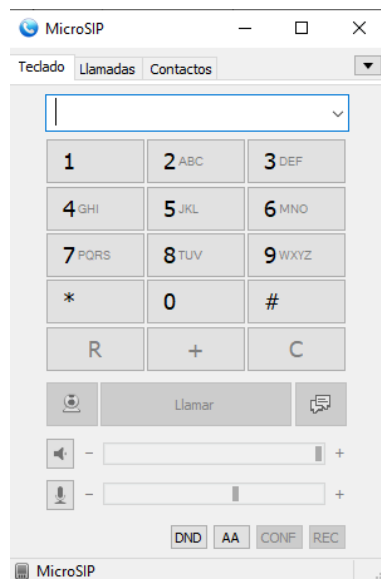
Publicar presencia 2

Permitir reescritura IP 2

ICE 2

Desactivar temporiz. de sesión 2

Main screen shows no connection, just MicroSIP.



AVAILABLE FUNCTIONS

1) CALL FROM PANEL TO PC

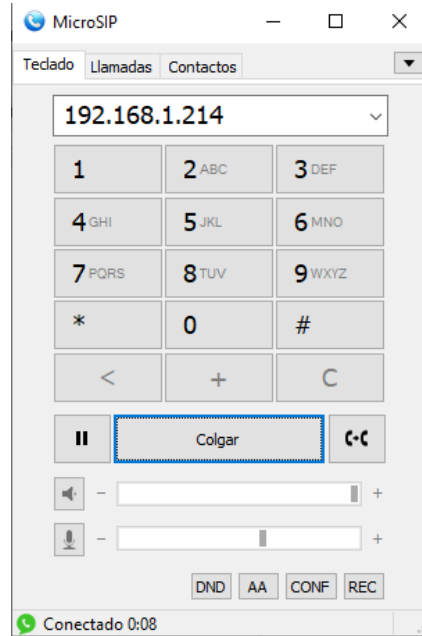
Dial code assigned to PC IP address (2 in previous example). Same behaviour as through SIP server.

2) CALL FROM PC TO PANEL

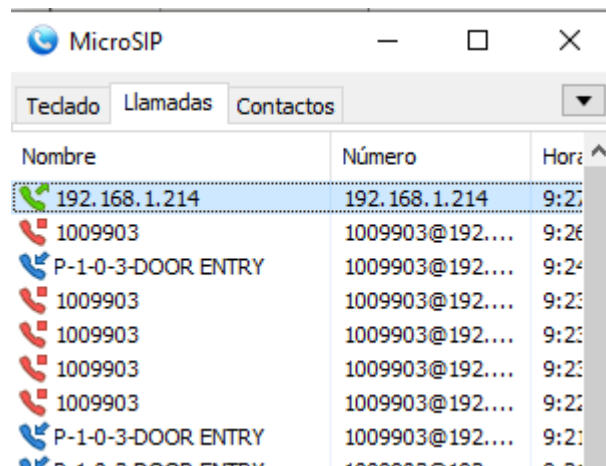
PC must be connected only to one network.

Several options:

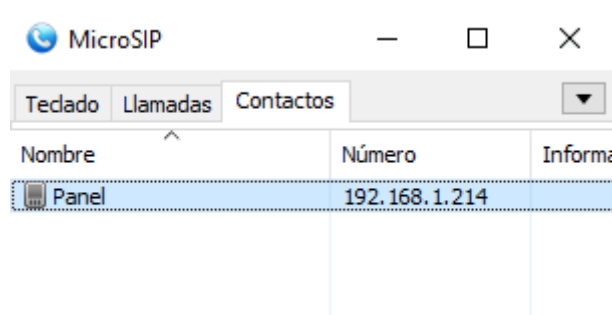
a. Dialling IP address of panel



b. Calling back from events calls



c. Creating one name in agenda with IP of panel



Same behaviour as through SIP server.

CONCLUSSIONS

MicroSIP provides an easy to use and configure SIP client solution to receive calls from MEET panels. It is light and responds fast.