VitalPBX

VitXi

CONTENT

Content

Introduction

VitXi WebRTC is a platform that integrates with VitalPBX in a transparent manner, and allows to have the following services:

- Audio Calls
- Video Calls
  - Screen Sharing
- SIP Chat (Chat between VitXi and SIP Users)
- Chat between VitXi Users
  - Voice Notes
  - Emojis
  - File Sharing
  - Image Sharing
- Graphic Voice Mail Interaction
- Call Recordings Viewer
- Prescence
- Call History
- Contact List
- And Much More!

VitalPBX Preparations

1.- VitalPBX Server Preparations

For VitXi WebRTC to work perfectly, it is necessary to have a valid FQDN to assign it security certificates. Coming up, we will show you the steps to follow once we have VitalPBX installed on our server with a valid domain.

### 1.1.1.- Install VitXi License Manager

Go to Admin > Add-Ons > Add-Ons and select VitXi License Manager (VitXi Server) and install it. With this we guarantee ourselves at least two free licenses with the Community Version of VitalPBX to try out VitXi WebRTC or VitXi Mobile.

Vitxi Server	1.0.0-1	-	🔒	📄 🗑

1.1.2.- Create a certificate and enable HTTP

Remember that it is necessary to have a valid FQDN and that our VitalPBX server must have a valid certificate.

It is also very important that the host name of the server matches the FQDN that we are using to generate the Let's Encrypt certificate, so first you have to go to Admin/Network/Network Settings and configure the Hostname as shown below.
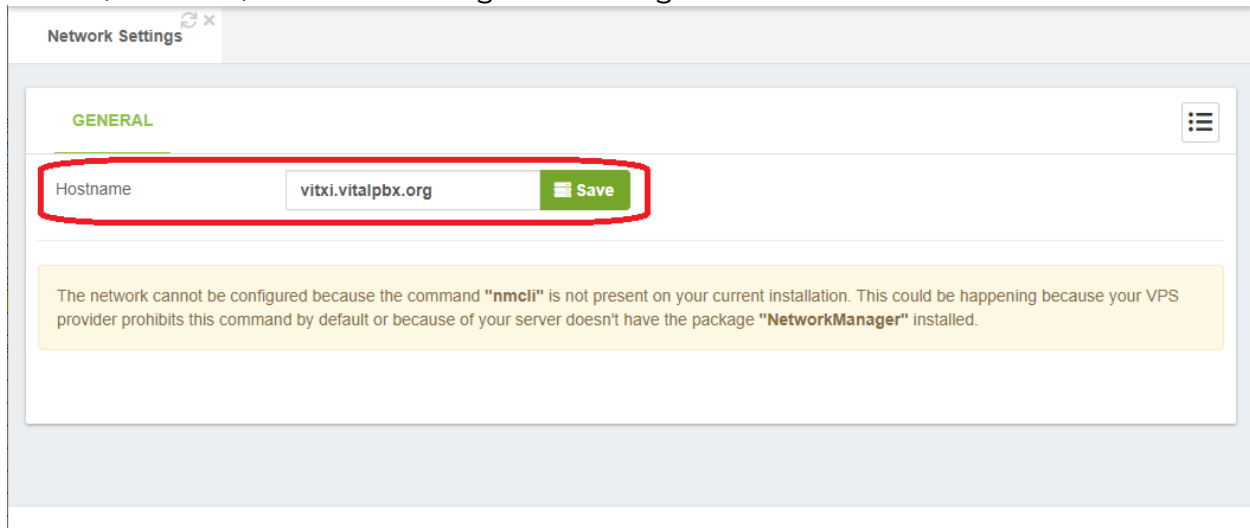
Now we are going to configure the certificate for which we are going to Admin/System Settings/Certificates.

Afterwards, go to Admin > System Settings > HTTP Server, and force HTTPS connection and select the certificate created previously.

Now go to Settings > PBX Settings > Mini HTTP Server and configure it as shown below. You must select the certificate we have created. Remember to save and Apply Changes. We do this so that VitXi WebRTC PJSIP WebSocket can communicate with VitalPBX.

Now, go to Settings > PBX Settings > RTP Settings and configure it as shown below. You must select the certificate created previously. Remember to Save and Apply Changes.
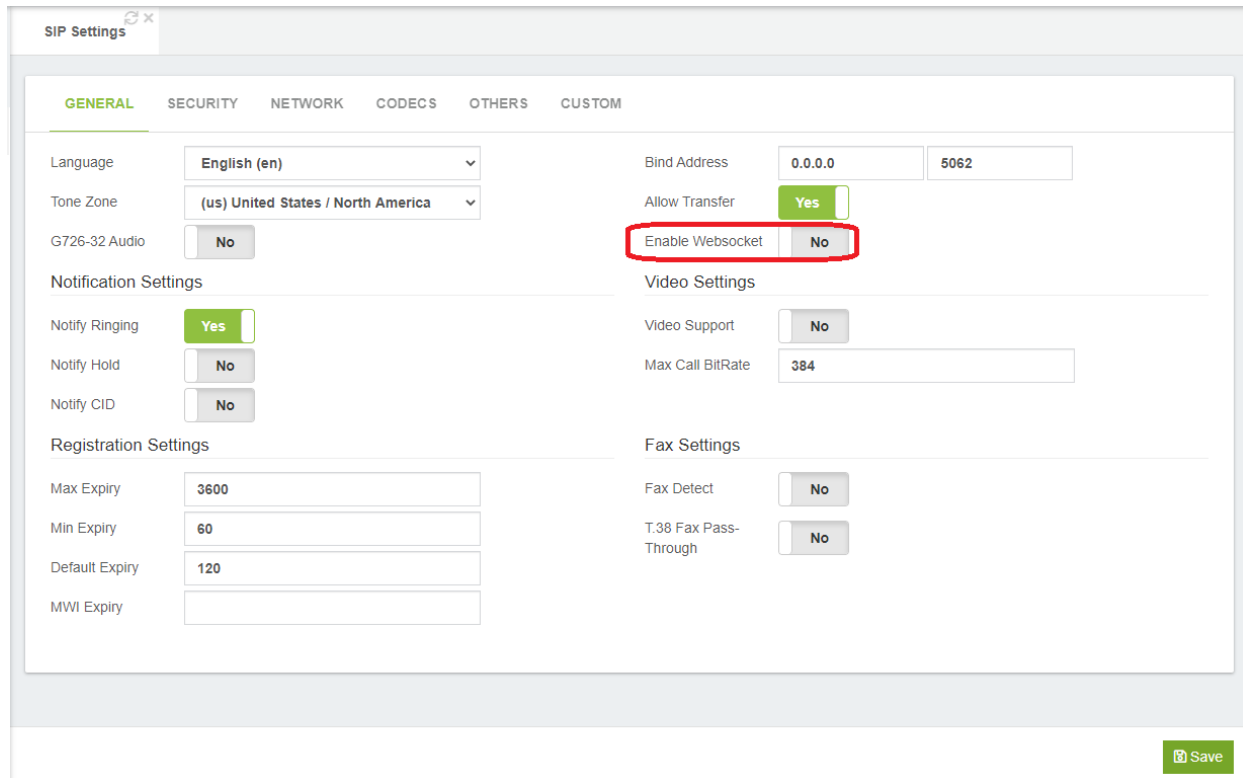
RTP Settings

GENERAL

RTP Start	10000	Stun Server	
RTP End	20000	Turn Server	
Strict RTP	Yes	Turn Server Name	
RTP Checksums	Yes		
ICE Support	Yes	Turn Server Password	

Save

Now, we are going to add the firewall rule that will allow WebRTC connections from the PJSIP socket, for which we will go to Admin > Firewall > Rules and we add the rule "**Asterisk HTTP Daemon**." Then, we apply changes.

Add Rule   ×

Service	Asterisk HTTP Daemon
Source	
Destination	
Action	ACCEPT

Close   Save

Now we will proceed to disable the SIP websocket, since the websocket cannot work at the same time in SIP and PJSIP. For this we go to Settings/Technology Settings/SIP Settings, in the General disable the option "Enable Websocket" if it was enabled.

Later Go to the linux console and restart Asterisk with the following command: **systemctl restart asterisk**

1.1.3.- Create a VitXi Extension

Go to PBX > Extensions > Extensions and create an extension with the following parameters:

- **Technology**, PJSIP
- **Profile**, Default WebRTC Profile
- **Codecs**, opus, ulaw, alaw, VP8, VP9
- **Send Push**, Yes
- **VitXi Client**, Yes

It is very important to select the listed codecs as this guarantees good communication quality.

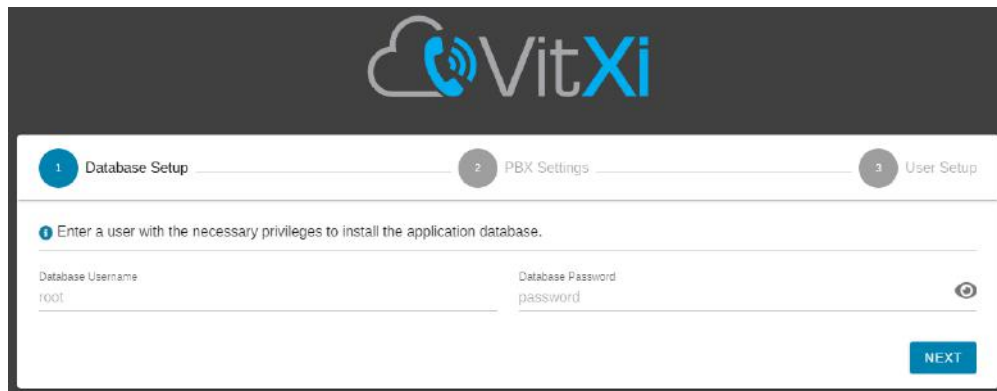Save and Apply Changes.

VitXi WebRTC

VitXi WebRTC is a full web application that integrates with VitalPBX and communicates through the PJSIP protocol over WebRTC.

1.- Installation

VitXi WebRTC works only with VitalPBX 3.0 and onwards. To install VitXi WebRTC it is necessary to go to the Add-On module (Admin > Add-Ons > Add-Ons) and press the green install button next to it. After a couple of minutes, the installation would be done and you can proceed to its URL (http://IP-ADDRESS/VitXi) and proceed with the installation wizard. You can press VitXi's name on the Add-Ons module to quickly go to this URL.

Now, we will see the installation wizard that will guide us through the final steps for configuration.
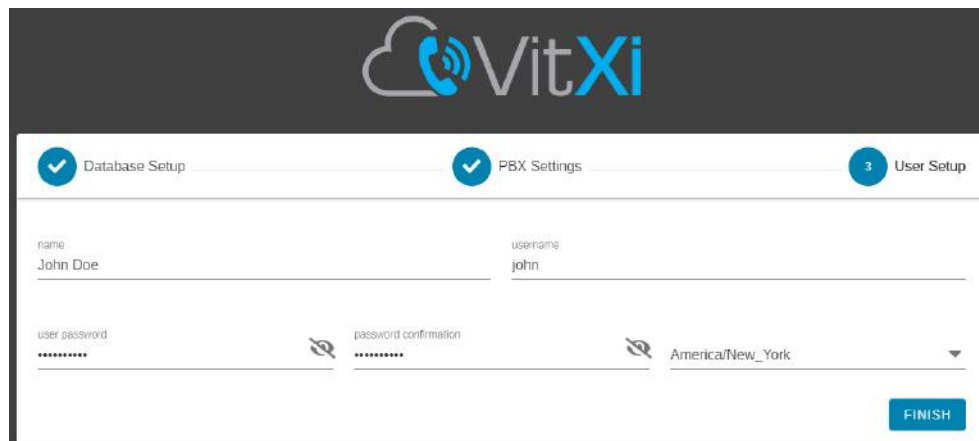
a.- Database Settings:

- **Database User**, MySQL user, if we are installing on the same server as VitalPBX, you can leave the username 'root' and blank password. Else, you will need to create a new MariaDB user to access remotely.
- **Database Password**, if we are installing on the same server as VitalPBX, the root user does not have a password. When accessing remotely, you must create a new username and password in MariaDB.
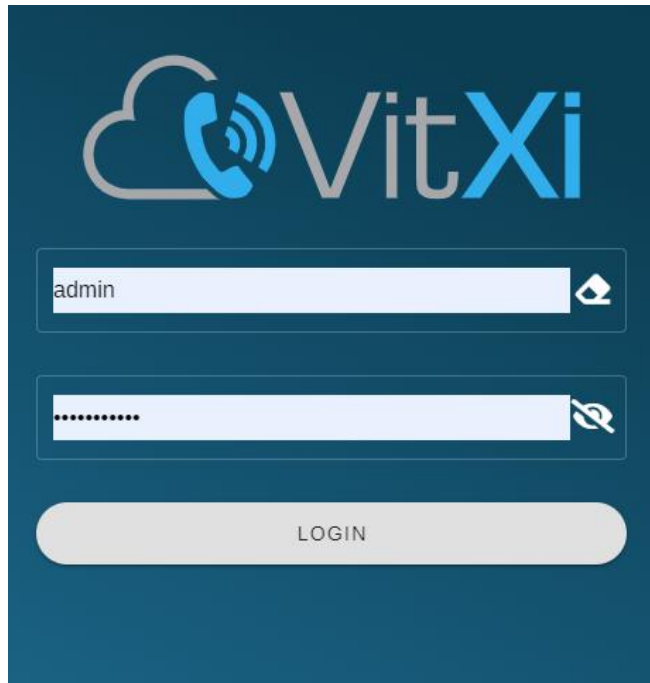
b.- PBX Settings:

- **Host**, if we are installing on the same server as VitalPBX, it is recommended to leave this field as **localhost**. Else, we must input the host or remote IP Address.
- **Port**, if our server has a valid certificate and all the requests are redirected to HTTPS, we must configure port 443. If we are not using HTTPS, we configure port 80. If we are accessing the PBX remotely, remember to open these ports on the firewall.
- **Application key**, if the VitXi is located on the same server as VitalPBX, it is not necessary to generate an API key since it will be generated automatically. If VitXi is installed on a different server to VitalPBX you will need to generate an API key under Admin > Admin > Application Keys. You then copy it and paste it here.
- **Secure**, indicates a secure connection through HTTPS. Usually, you check this option when using port 443.
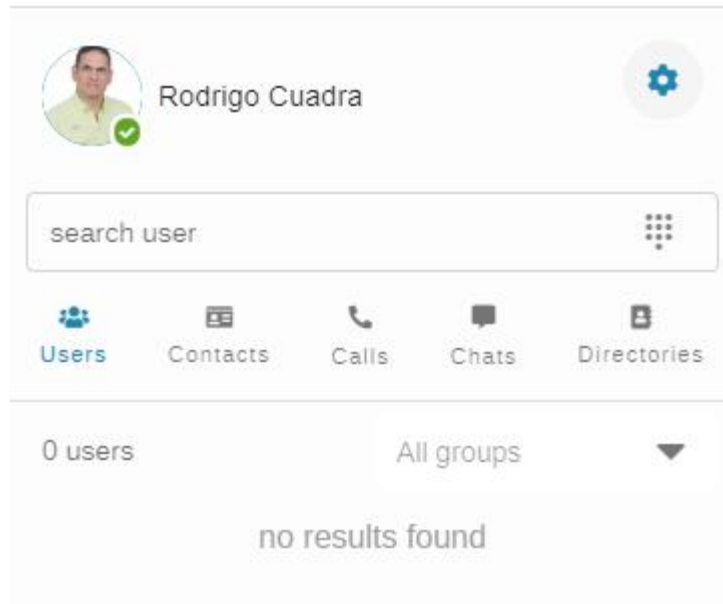
c.- User Setup:

- **Name**, full name for the administrator user in VitXi.
- **Username**, is the administrator username to use in VitXi, usually 'admin.'
- **User Password y Password Confirmation**, admin user password.
- **Time zone,** here you choose a default time zone.

d.- Enter the Username and Password previously created.

2.- Menu

On the menu we got the following options:
- **Users**, the list of VitXi Users on our tenant.
- **Contacts**, the contact list added by the user manually.
- **Calls**, the user's call history.
- **Chats**, list of people with which the user has had some type of chat.
- **Directories**, phone directories that are extracted from the VitalPBX Phonebook.
- ⚙ , main menu to configure the system.
- ⦿⁴ , Voicemail Messages indicator.

3.- Settings

3.1.- Settings

The first thing that we are going to configure are the System Settings, for which we will go to the main menu and select settings. This will display the following screen.

General

Timezone, the time zone for the user. This way, the user will see its own time zone no matter where they are located.
Push Notifications, the user can receive a notification for certain events, for example, receiving a call, a message, and more.
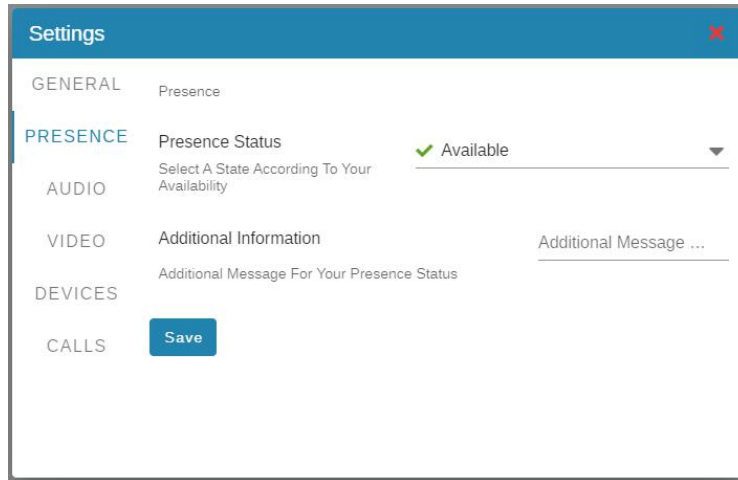**Dark Mode**, here you can select the dark mode view of the interface.
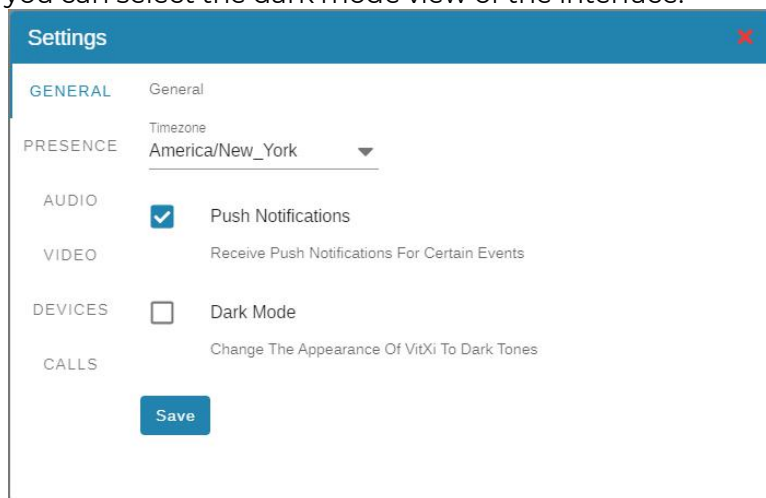
Presence

Presence Status, select the presence status with which we desire to have when login in.
Additional Information, if the user wants to show some additional message that other users that are connected will see.

Audio

Echo Cancellation, this is used to prevent the echo effect during a call.
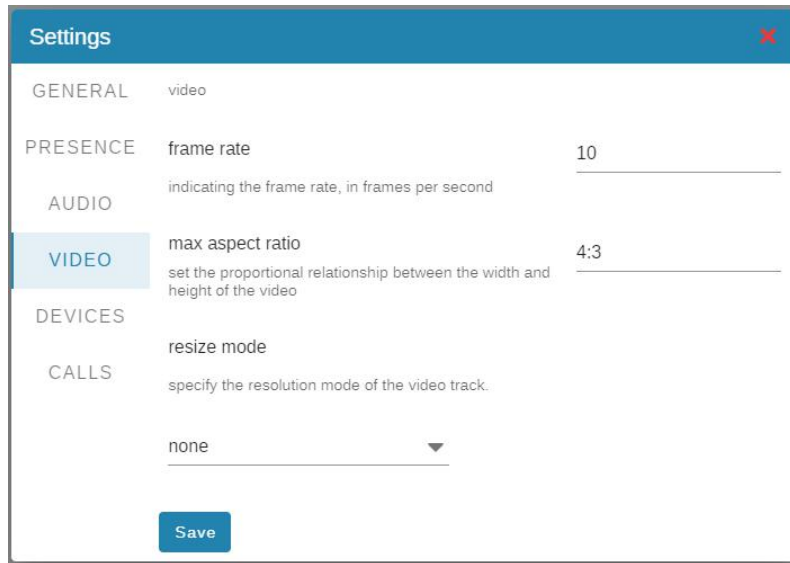**Noise Suppression**, automatically filters and eliminates background noise.
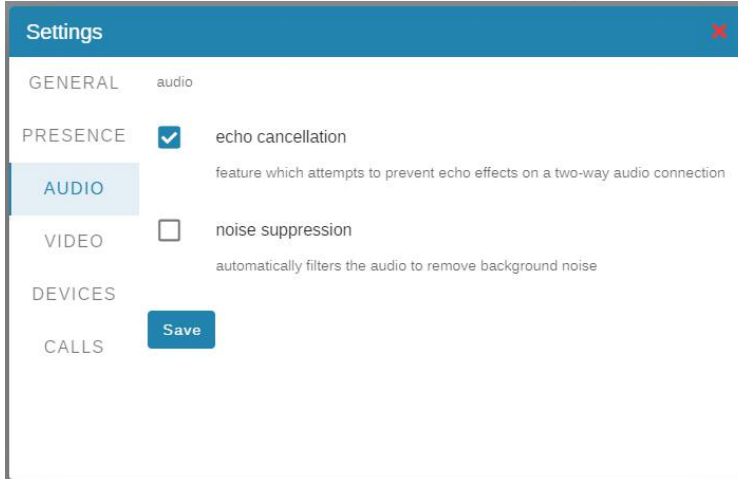
Video

Frame rate, this indicates the frames per second for your video feed.
Max aspect Ratio, this indicates the ratio for the dimensions of your video feed.
Resize Mode, specifies the resolution mode for the video image.

Devices

Camera, this allows you to select your video device for video calls.
Microphone, here you select your desired microphone device.
Audio, here you can select your audio output device.
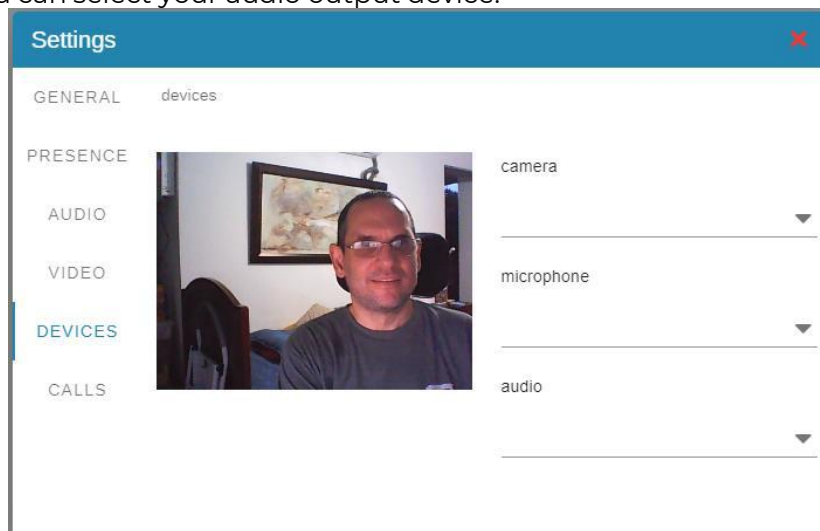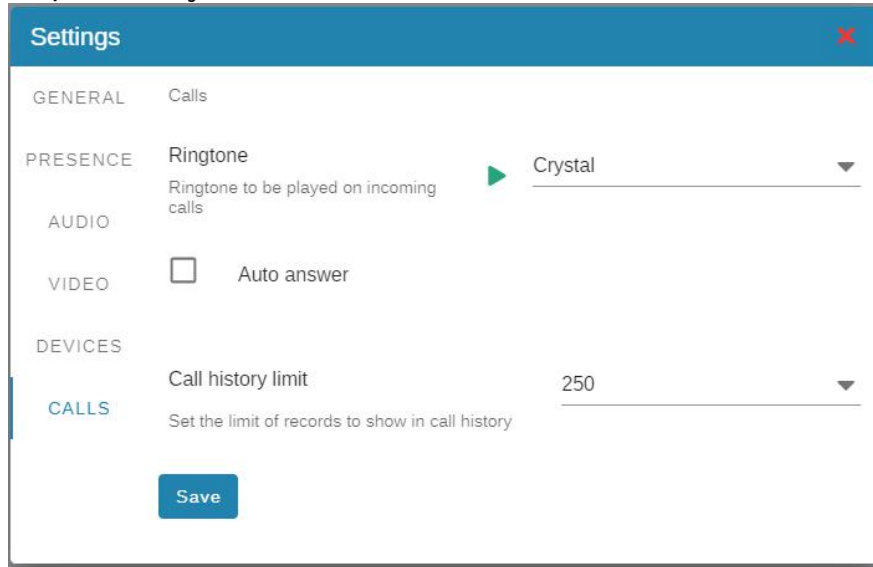
Calls

Ringtone, here you can select the ring tone to listen when the user is receiving a call.
Auto Answer, this will answer the call automatically.
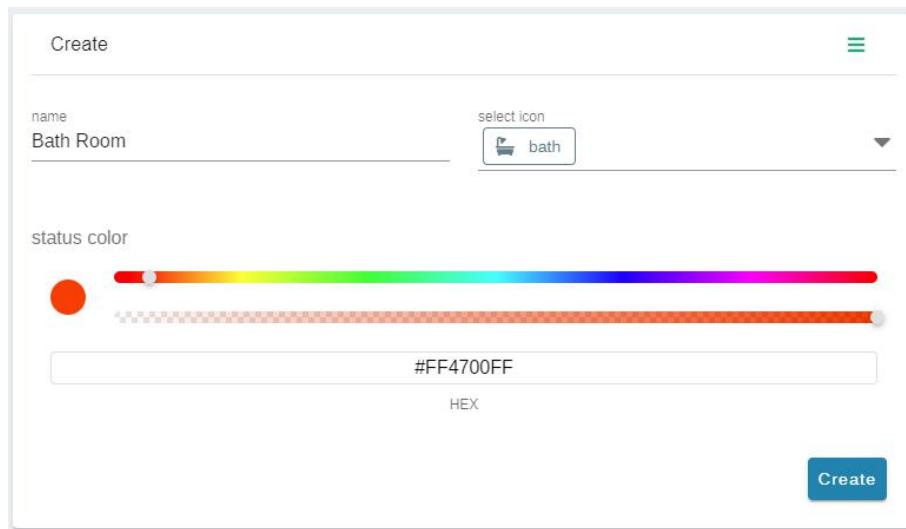
Call history limit, with this you can establish the call limit to show on the Calls option 📞 Calls.
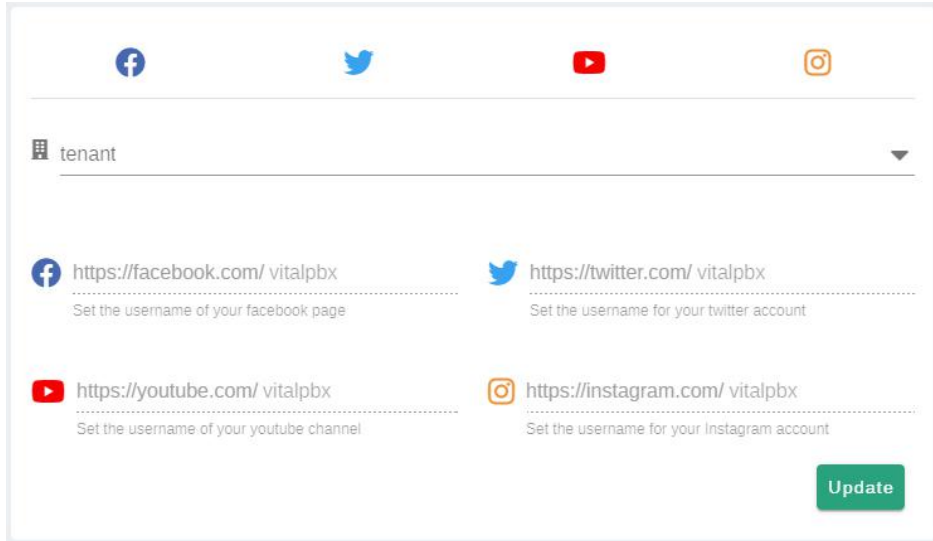

3.2.- Presence Status

Here, the system administrator can create the different presence status that users can use. By default, there are five (5) status which are, Available, Do Not Disturb, Lunch Break, and Business Trip, however, you can add more.

3.3.- Social Network
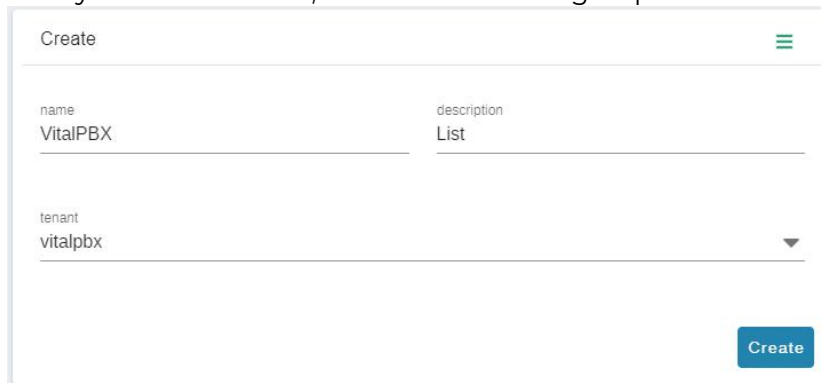
Here, you can configure the social media that will appear on the footer.
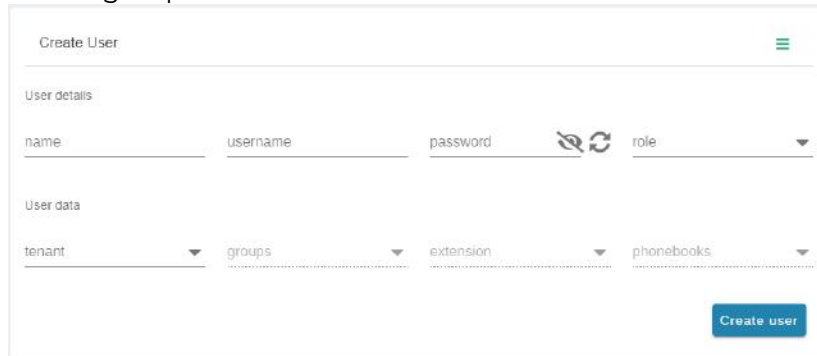

3.4.- Groups

With the purpose that the VitXi users become visible between each other, it is necessary that each user has a group assigned to them, and afterwards, we give access to other users to see this group. This way, you can create multiple groups of users limiting them on which groups they can see. For this, we first create the group name.

3.5.- Users

Now, we will create the users and assign them to the groups we want to. A user can belong to one or more groups.

Name, user's full name.
Username, username with which the user will log into VitXi WebRTC.
Password, password with which the user will log into VitXi WebRTC.
Role, the type of user. There are three types of users.
- **Super Administrator,** capable of managing all the users and tenants.
- **Administrator,** capable of managing users within its tenant.
- **User,** VitXi WebRTC end-users.

Tenant, tenant to which the user belongs to.
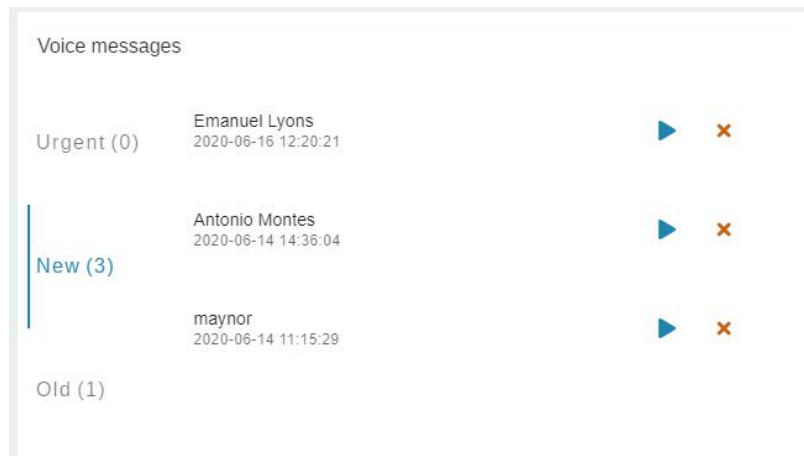**Groups,** groups to which the user belongs to.
Extension, extension associated to the user. For this, the user needs to have a VitXi Device created on VitalPBX.
Phonebooks, phonebooks to which the user will have access to.

3.6.- Voice Messages

It is possible to view all of your Voicemail messages from VitXi WebRTC, which allows us to perform the following actions:
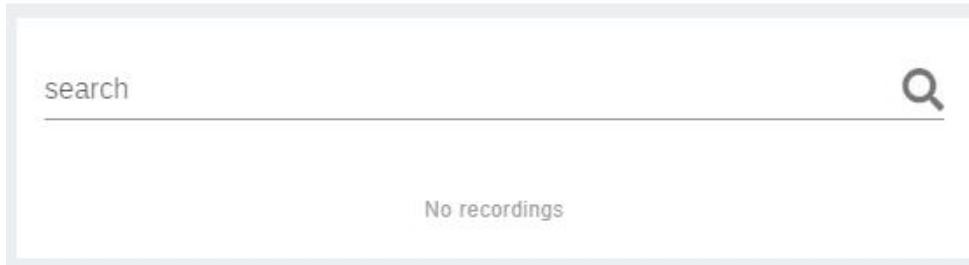- Listen
- Delete

3.7.- Recordings

It is possible to listen to the user's call recordings from the extension they have associated to them.

3.8.- PBX Settings
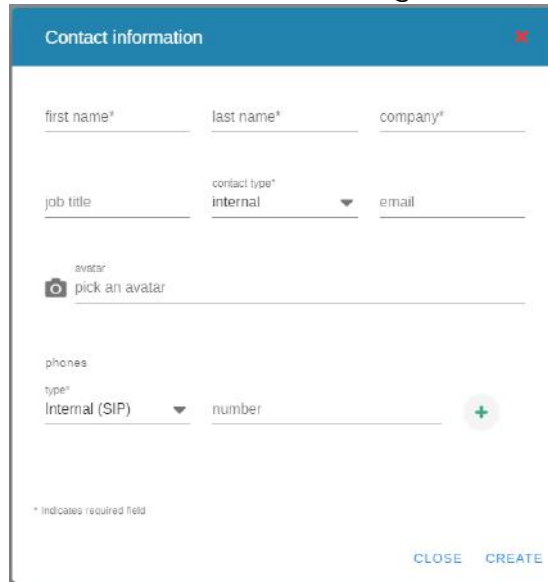
Even though this information is asked at the moment of installation, it is also possible to perform some modifications afterwards.

3.9.- Add Contacts

To add a new contact, it is necessary to go to 'Contacts' [Contacts] , and on the bottom press the 'Add Contact' option and then it will show us the following form.

First Name, the contact's First Name.
Last Name, the contact's Last Name.
Company, name of the Company where the Contact works at.
Job Title, the job they perform at the company they work at.
Contact Type, the type of contact, Internal or External.
**Email,** contact's email address.
Avatar, image to remember the contact with.
Phones, contact's phone number, they can be SIP, cellphone, or any other type.

4.- Placing Calls

There are many ways to perform calls through VitXi WebRTC. The easiest way is by selecting the user and then pressing one of the three options available:

- 📞 , Audio Call

- 🎥 , Video Call, with the option to share screen.

- 💬 , Chat message
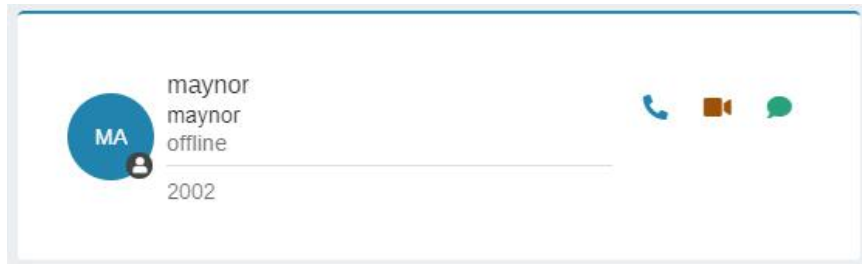
We can also use the Number Pad by pressing the ⚏ button, shown above the Directories menu.