



Installation of Apache OpenMeetings 4.0.10 on Arch Linux

This tutorial is based on a fresh installation of

arch-anywhere-2.2.9-x86_64.iso

Arch Anywhere, it is a pure Arch Linux, with the only difference that the installation is graphical. That's all.

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.10 stable, that is to say will suppress his compilation. It is done step by step.

14-12-2019

Please, be connected to Internet during all the process to run any server.

Starting...

1)

----- Update Operative System -----

Open a terminal as root:

`su`

...will ask for root password, and we update the operative system:

`pacman -Syu`

2)

----- Installation of Java -----

Java it is necessary for OpenMeetings 4.0.10. We'll install OpenJava 11. Continue as root:

```
pacman -S jdk11-openjdk
```

...and the plugin that later, and being in a room, we can record and share desktop:

```
pacman -S icedtea-web
```

Do OpenJava as default (maybe is another java versions) and exit as root:

```
archlinux-java set java-11-openjdk/jre
```

```
exit
```

3)

----- Installation of LibreOffice -----

OpenMeetings will need LibreOffice to convert to pdf the uploaded office files.

We install LibreOffice and Firefox (my Arch Linux installation have Mate desktop):

```
sudo pacman -S libreoffice
```

...press **Enter** to any question.

4)

----- Installation of necessary packages and libraries -----

Will install packages and libraries that we'll need later:

(Only one line with space between each one)

```
sudo pacman -S libjpeg ghostscript unzip gcc ncurses make zlib libtool bison bzip2 file-roller  
autoconf automake pkgconfig tomcat-native nmap curl freetype2 nano base-devel fakeroot jshon  
expac git wget
```

5)

----- Installation ImageMagick and Sox -----

ImageMagick, will work with images files jpg, png, gif, etc. We install it:

```
sudo pacman -S imagemagick
```

Sox, work the sound. Install it:

```
sudo pacman -S sox
```

6)

----- **Installation of Adobe Flash Player** -----

OpenMeetings even need Adobe Flash Player for cam and audio. We install it:

```
sudo pacman -S flashplugin
```

7)

----- **Compilation of FFmpeg** -----

FFmpeg work with video. Will install a libraries, paquets, and vlc to play the recordings that we'll make in OpenMeetings:

(Only one line with space between both)

```
sudo pacman -S ffmpeg lame glibc faac faad2 gsm imlib2 vorbis-tools autoconf automake cmake  
gcc git libtool make mercurial nasm pkgconfig yasm vlc
```

8)

----- **Installation of MariaDB data server** -----

MariaDB is the data server. We install it: (continue as root in shell)

```
sudo pacman -S mariadb
```

Initialize data directories (be connected to Internet):

```
sudo mysql_install_db --user=mysql --basedir=/usr --datadir=/var/lib/mysql
```

...and run MariaDB:

```
sudo systemctl start mysqld
```

Give a password to MariaDB root . Please, modify **new-password** by your own and remember it:

```
sudo mysqladmin -u root password new-password
```

Access to MariaDB:

```
sudo mysql -u root -p
```

...will ask for the password you does just now.

Make a database called open4010 for OpenMeetings. User password must be of 8 digits minimum:

```
MariaDB [(none)]> CREATE DATABASE open4010 DEFAULT CHARACTER SET 'utf8';
```

Now we create a user with all permission on this open4010 database:

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open4010.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

```
* open4010 ..... name of the database  
* hola ..... user for that database  
* 1a2B3c4D .....password of this user
```

You can change the data, but...remember it! Later we'll need it.

We leave MariaDB:

```
MariaDB [(none)]> quit
```

9)

----- Installation of OpenMeetings -----

We'll install OpenMeetings in /opt/red54010. All the following information will be based on this directory.

Call to our folder of installation red54010

Make that folder:

```
sudo mkdir /opt/red54010
```

```
cd /opt/red54010
```

...and download the OpenMeetings file:

```
sudo wget http://archive.apache.org/dist/openmeetings/4.0.10/bin/apache-openmeetings-4.0.10.tar.gz
```

```
sudo tar xzvf apache-openmeetings-4.0.10.tar.gz
```

...save the unloaded file to /opt:

```
sudo mv apache-openmeetings-4.0.10.tar.gz /opt
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
sudo wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.48/mysql-connector-java-5.1.48.jar
```

...and copy it to where must be:

```
sudo cp /opt/mysql-connector-java-5.1.48.jar /opt/red54010/webapps/openmeetings/WEB-INF/lib
```

10)

----- Script to launch red5-OpenMeetings -----

We make the folder /etc/init.d, where put the red5 run script:

```
sudo mkdir /etc/init.d
```

Download the script to run red5-OpenMeetings:

```
cd /opt
```

```
sudo wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-2
```

...copy it to where must be:

```
sudo cp red5-2 /etc/init.d/
```

...concede execution permission:

```
sudo chmod +x /etc/init.d/red5-2
```

If you would made the installation in any other different path to /opt/red54010, please edit the script and modify the line:

```
RED5_HOME=/opt/red54010
```

...to

```
RED5_HOME=/your-path-installation
```

11)

----- Run red5-OpenMeetings -----

Restart MariaDB:

```
sudo systemctl restart mysqld
```

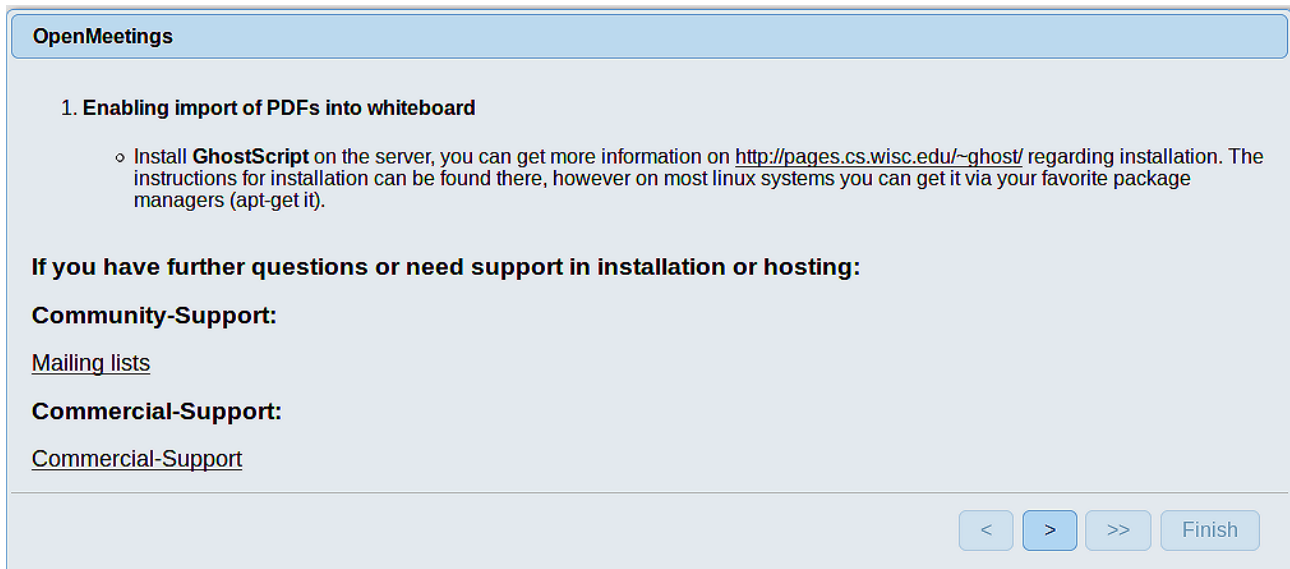
...and run red5-OpenMeetings. Please, open a new terminal as root, and be connected to Internet, so the running will be quick:

```
sudo /etc/init.d/red5-2 start
```


...wait 30 or 40 seconds for running red5-OpenMeetings completly. Then, go with the browser to:

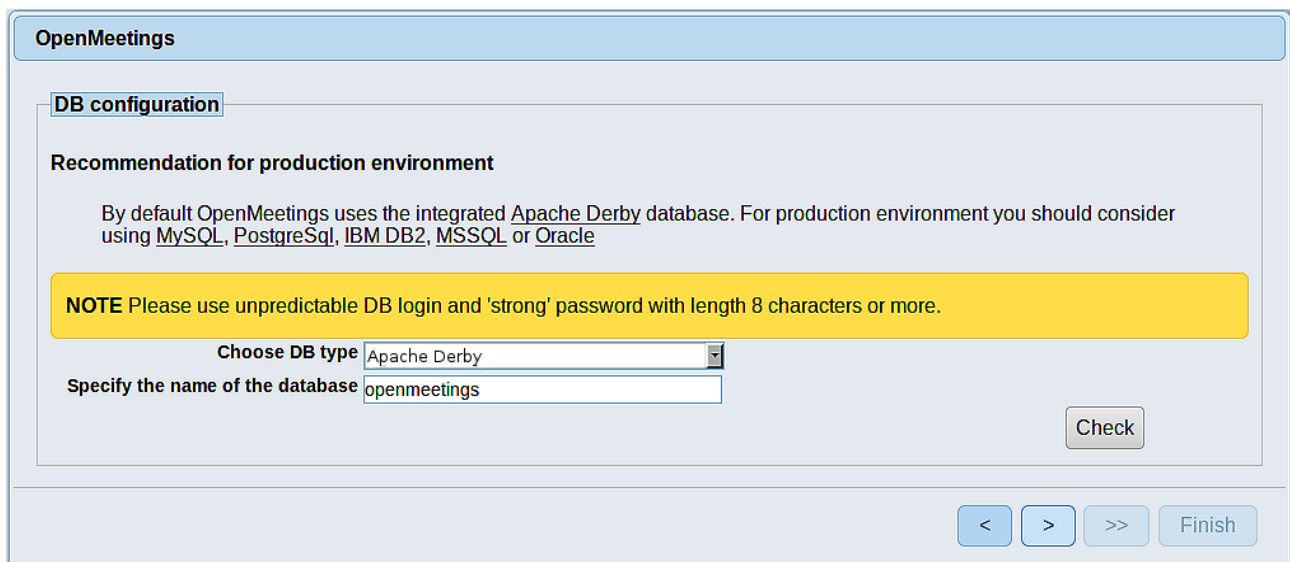
<http://localhost:5080/openmeetings/>

...there will appear a page similar to this one:



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...push on  (bottom), and will show the default configuration with Derby, but we employ MySQL (MariaDB):



...so, scroll and **Choose DB type** to MySQL:

OpenMeetings

DB configuration

Recommendation for production environment

By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MySQL, PostgreSQL, IBM DB2, MSSQL or Oracle

NOTE Please use unpredictable DB login and 'strong' password with length 8 characters or more.

Choose DB type

Specify DB host

Specify DB port

Specify the name of the database

Specify DB user

Specify DB password

Now we must introduce the database name, user name and his password we did at the step 8:

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Specify the name of the database = open4010

Specify DB user = hola

Specify DB password = 1a2B3c4D

Press button, and will go to:

OpenMeetings

Userdata

Username

Userpass

E-Mail

User Time Zone

Group(Domains)

Name

Here, we must introduce a user name for OpenMeetings, and his password. This must have 8 digits minimum, and at least 1 special symbol like: + (% # ! ...etc.


Username = a-name ...this user will be administrator.

Userpass = a-password ...for the previous user.

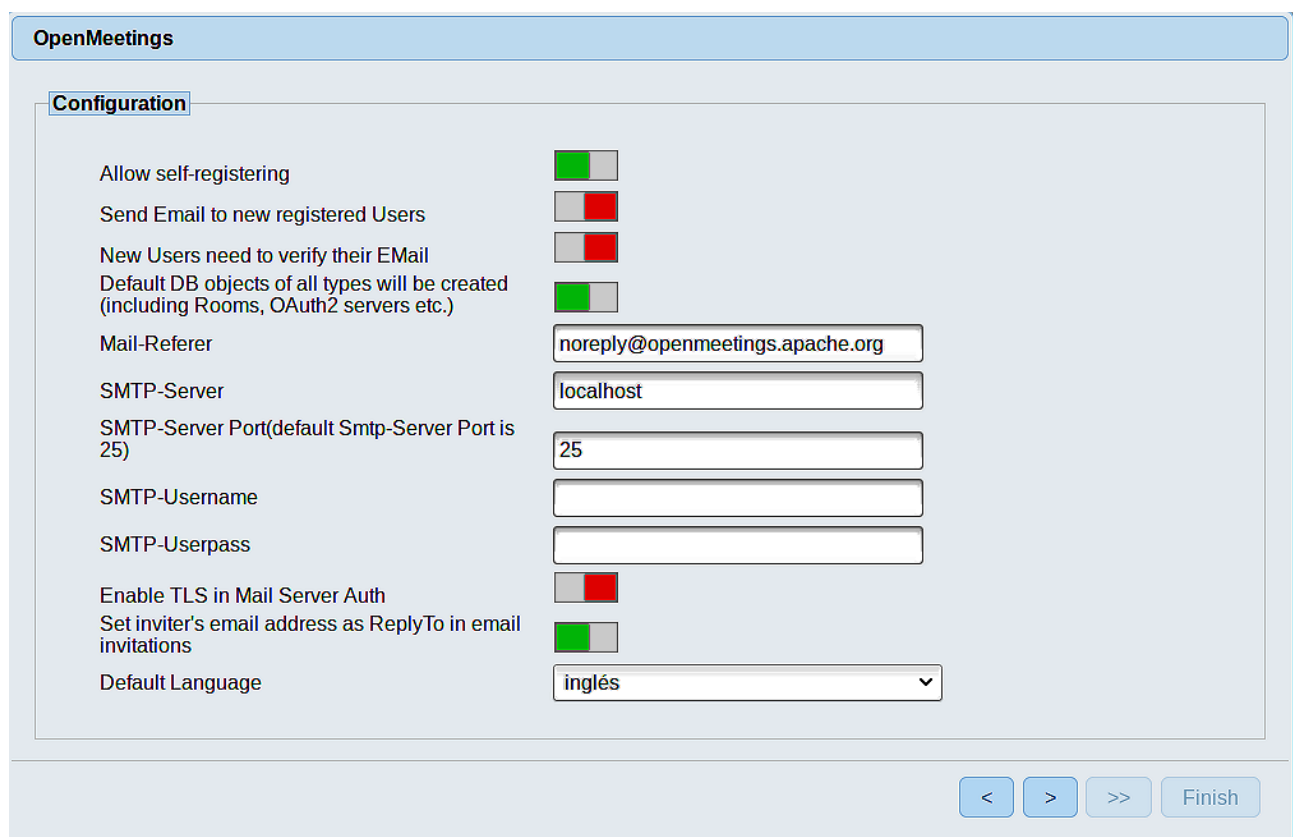
Email = email-adress ...of this previous user.

User Time Zone = country where is this server.

Name = example-openmeetings ...group name to choose.

Press the button  and will lead us to a new page (below) where you can select the language for your OpenMeetings server, as well as other options such as the configuration of the mail server being used to send invitations or meetings from OpenMeetings:

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OpenMeetings

Configuration

Allow self-registering

Send Email to new registered Users

New Users need to verify their EMail

Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)

Mail-Referer

SMTP-Server

SMTP-Server Port (default SmtP-Server Port is 25)

SMTP-Username

SMTP-Userpass

Enable TLS in Mail Server Auth

Set inviter's email address as ReplyTo in email invitations

Default Language

< > >> Finish

A valid example to configure the mail server with Gmail, is as follows:
(replace **john@gmail.com** with your real Gmail account)

Mail-Refer	==	john@gmail.com
SMTP-Server	==	smtp.gmail.com
SMTP-Server Port (default SmtP-Server Port is 25)	==	587
SMTP-Username	==	john@gmail.com
SMTP-Userpass	==	password of john@gmail.com
Enable TLS in Mail Server Auth	==	...turn green the button to activate
Default Language	==	...select your language

...the rest you can change it as you like.


Now press the button  and a new page will appear:

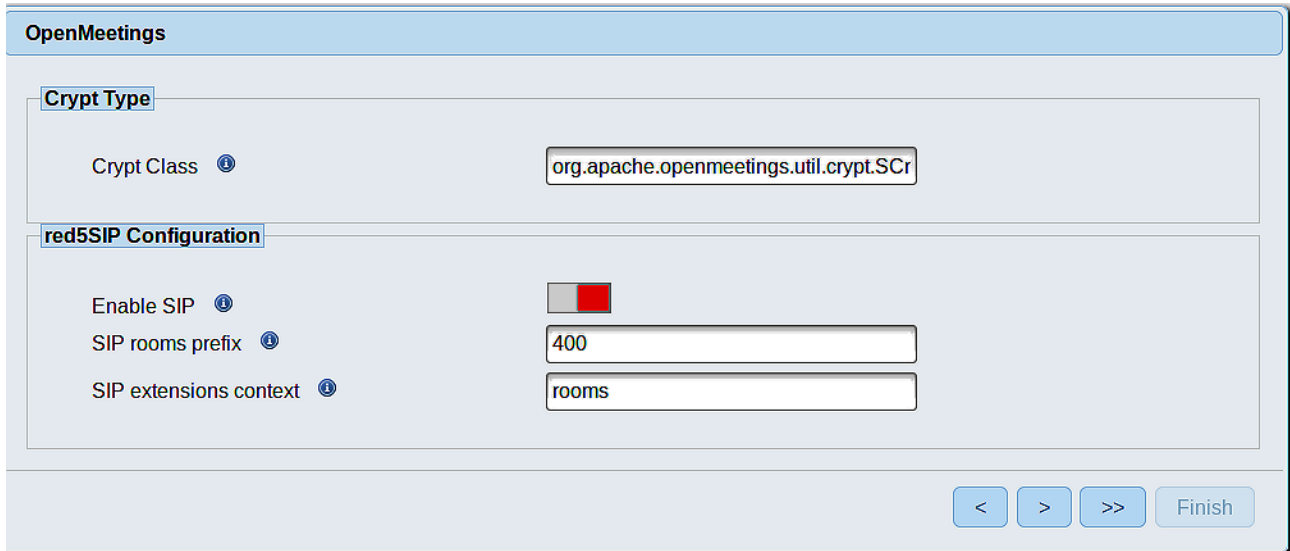
Here we'll introduce the respective paths for the image, video, audio and conversion of uploaded files:

ImageMagick Path	==	/usr/bin
FFMPEG Path	==	/usr/bin
SOX Path	==	/usr/bin

OpenOffice/LibreOffice Path for jodconverter


== /usr/lib/libreoffice


Once completed the paths, please click the  button and move on to another page that would be to activate the SIP. We will leave it as is, unless you want to activate it knowing what it does:



The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a 'Crypt Type' section with a 'Crypt Class' field containing 'org.apache.openmeetings.util.crypt.SCr'. Below that is a 'red5SIP Configuration' section with 'Enable SIP' (checked), 'SIP rooms prefix' (400), and 'SIP extensions context' (rooms). At the bottom right are navigation buttons: '<', '>', '>>', and 'Finish'.

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Now, touch the button  Will show this window:

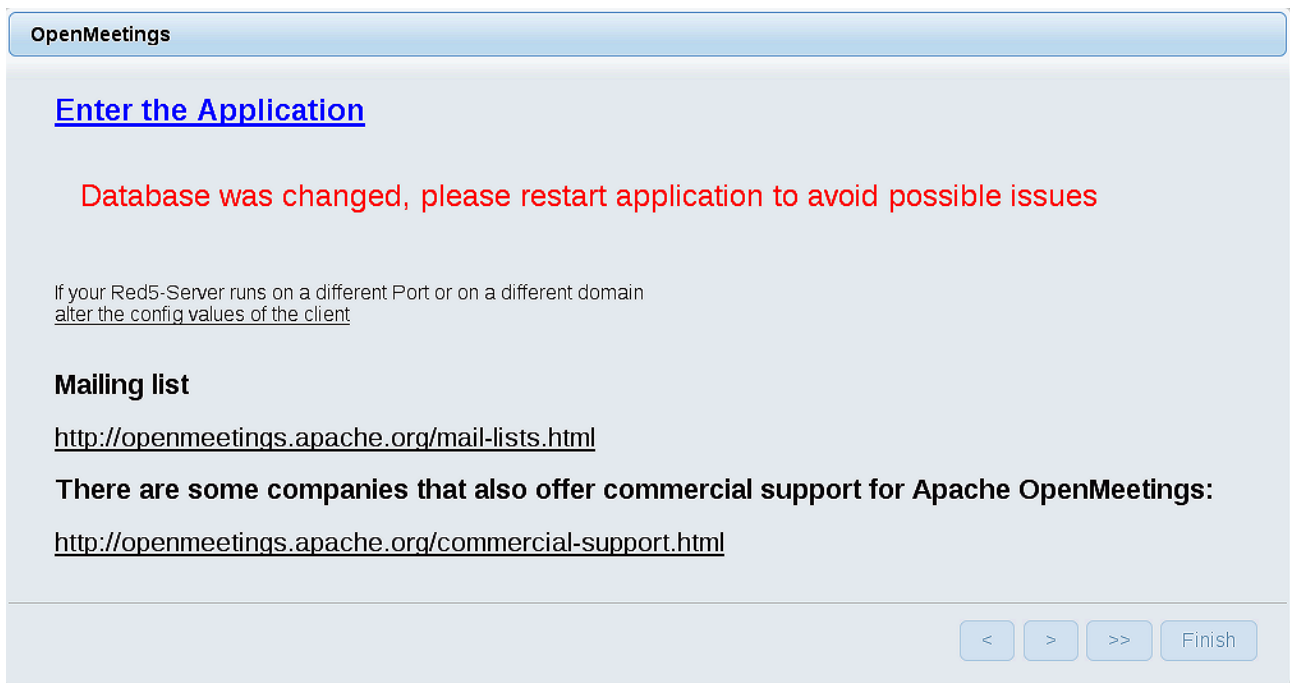


The screenshot shows the 'OpenMeetings' window with a message: 'Please click "Finish" button to start installation!'. Below the message is a large empty text box. At the bottom right are navigation buttons: '<', '>', '>>', and 'Finish'.

Press **Finish** button...wait a seconds until the tables are fill in our database.

When is concluded, this another page will appear. **Don't** clic on [Enter the Application](#).
First is need it to restart red5 server. Please, be connectd to Internet. Open a new terminal as root:

```
sudo /etc/init.d/red5-2 restart
```



Now yes, you can clic on [Enter the Application](#), or go with your browser to:

<http://localhost:5080/openmeetings>

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...and will take us to the entry of OpenMeetings:

Introduce the user's name and the password, that you have choosen during the installation, push **Sign in** button, and...

...**Congratulations!**

The next time that you like to accede OpenMeetings, would be:

<http://localhost:5080/openmeetings>

Remember to open in the server, the two following ports:

1935 5080

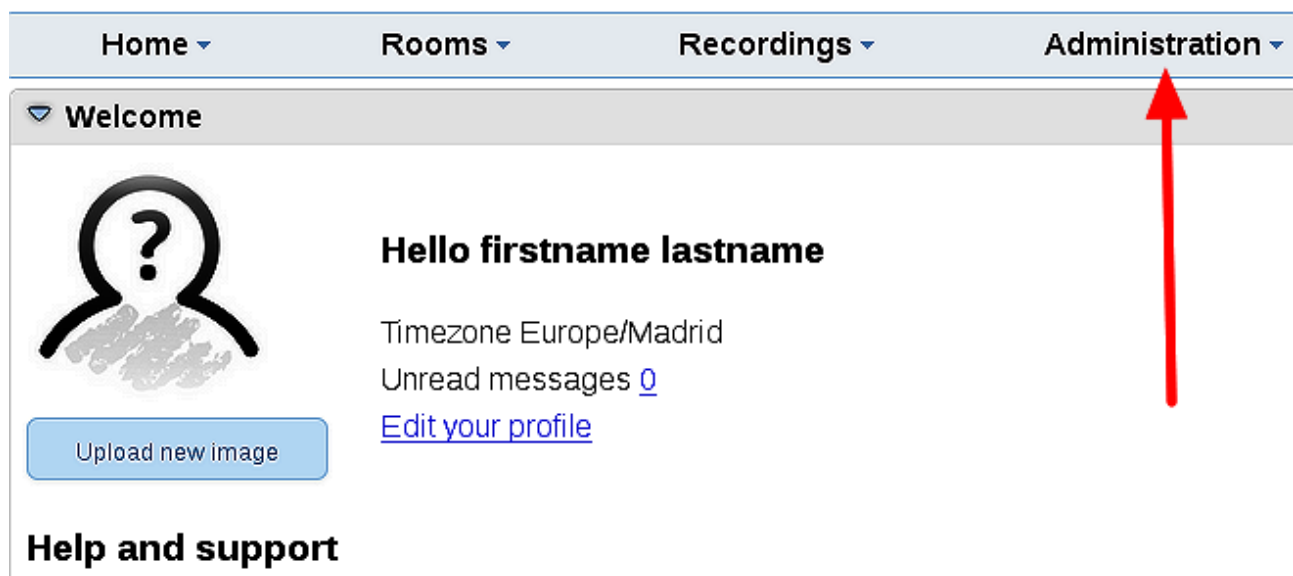
...in order that it could accede to OpenMeetings from other machines in Lan or Internet.

12)

----- **OpenMeetings's configuration** -----

Once you acced to OpenMeetings, if you would like to do any modification in the configuration, please go to:

Administration → Configuration



The screenshot displays the OpenMeetings web interface. At the top, there is a navigation bar with four items: 'Home', 'Rooms', 'Recordings', and 'Administration', each with a downward-pointing arrow. The 'Administration' item is highlighted with a red arrow pointing upwards. Below the navigation bar is a 'Welcome' section with a user profile icon (a question mark inside a circle) and the text 'Hello firstname lastname'. To the right of the profile icon, it shows 'Timezone Europe/Madrid' and 'Unread messages 0'. Below this, there is a blue button labeled 'Upload new image' and a blue link labeled 'Edit your profile'. At the bottom of the screenshot, the text 'Help and support' is visible.

...and following the order of the red arrows:

The screenshot shows the OpenMeetings Administration interface. On the left is a table of configuration items, and on the right is a configuration form for a selected item. Red arrows indicate the mapping between the table and the form:

- Arrow 1 points from the 'Key' column of row 20 ('path.ffmpeg') to the 'Key' field in the configuration form.
- Arrow 2 points from the 'Value' column of row 20 ('') to the 'Value' field in the configuration form.
- Arrow 3 points from the 'Value' column of row 20 to the 'Comment' field in the configuration form.

ID	Key	Value
1	crypt.class.name	org.apache.openmeetings.util.crypt.SCryptImplementation
2	allow.frontend.register	true
3	allow.soap.register	true
4	allow.oauth.register	true
5	default.group.id	1
6	mail.smtp.server	localhost
7	mail.smtp.port	25
8	mail.smtp.system.email	noreply@openmeetings.apache.org
9	mail.smtp.user	
10	mail.smtp.pass	
11	mail.smtp.starttls.enable	false
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default.lang.id	8
16	document.dpi	150
17	document.quality	90
18	path.imagemagick	
19	path.sox	
20	path.ffmpeg	
21	path.office	
22	dashboard.rss.feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user/?format=atom
23	dashboard.rss.feed2	http://mail-archives.apache.org/mod_mbox/openmeetings-dev/?format=atom
24	send.email.at.register	false
25	send.email.with.verification	false

The configuration form on the right shows the following fields:

- Type: string
- Key: path.ffmpeg
- Value: (empty)
- Last update: Oct 17, 2017 5:54:57 PM
- Updated by: toro
- Comment: Path To FFMPEG

13)

----- Special step for ImageMagick -----

We modify ImageMagick, so OpenMeetings can upload office files to whiteboard:

`sudo nano /etc/ImageMagick-7/policy.xml`

...and comment out the follow line, near to bottom file:

```
<policy domain="coder" rights="none" pattern="{PS,PS2,PS3,EPS,PDF,XPS}" />
```

...to

```
<!-- <policy domain="coder" rights="none" pattern="{PS,PS2,PS3,EPS,PDF,XPS}" /> -->
```

Press in the keyboard **Ctrl+x**, will ask to save, press **Y**, and press **Enter** to exit nano editor. This last must be repeated every time you update system-ImageMagick.

If you have some doubt or question, please raise it in the Apache OpenMeetings forums:

<http://openmeetings.apache.org/mailling-lists.html>



Also you can download if you like, a wallpaper of OpenMeetings for different devices such as:

PC, Mac, Smartphone, iPhone and Tablets. Here is the link to download:

[OpenMeetings Wallpaper Download](#)

A dvd live iso with OpenMeetings 4.0.10 on Ubuntu 18.04 lts is at your disposal.

Can find it here:

[Live iso download](#)

Thank you.

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).