



## **Installation of Apache OpenMeetings 4.0.6 on Centos 6.10**

This tutorial is made based on fresh installations of

**CentOS-6.9-x86\_64-LiveDVD.iso**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.6 stable, that is to say will suppress his compilation. It is done step by step.

15-10-2018

Starting...

1)

```
yum install -y gedit wget
```

At first place we must modify Selinux level security for the installation:

```
sudo gedit /etc/selinux/config
```

...modify:

```
SELINUX=enforcing
```

...to

SELINUX=**permissive**

2)

----- Update the System -----

Update operative system:

`yum update -y`

...and reboot for the kernel changes and the new **Selinux** configuration take effect.:

`reboot`

3)

----- ADD Repos -----

### Add the **Epel** repository ###

**For Centos 6.x 32bit**

`cd /opt`

`wget http://dl.fedoraproject.org/pub/epel/6/i386/epel-release-6-8.noarch.rpm`

`rpm -Uvh epel-release-6-8.noarch.rpm`

**For CentOS 6.x 64bit:**

`cd /opt`

`wget http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm`

`rpm -Uvh epel-release-6-8.noarch.rpm`

### Añadimos el repositorio **linuxtech** (32 y 64 bits) ###

...para la instalación de vlc, reproductor de video para las futuras grabaciones que hagamos en OpenMeetings.:

`cd /opt`

```
wget http://pkgrepo.linuxtech.net/el6/release/linuxtech.repo
```

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```
cp linuxtech.repo /etc/yum.repos.d
```

```
### Adobe repo 32bit ## For Flash Player.
```

```
rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-i386-1.0-1.noarch.rpm
```

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-adobe-linux
```

```
### Adobe repo 64bit ### For Flash Player.
```

```
rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-x86_64-1.0-1.noarch.rpm
```

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-adobe-linux
```

```
yum update
```

4)

#### ----- Installation of OpenJava 1.8 -----

Java **1.8** it is necessary to work OpenMeetings **4.0.6**. We install OpenJava:

```
yum install -y java-1.8.0-openjdk
```

...and icedtea-web for can access to record and share desktop in OpenMeetings:

```
yum install -y icedtea-web
```

Maybe you have installed various versions of Java. We select the just installed OpenJava:

```
update-alternatives --config java
```

And to see if the selected version is active:

```
java -version
```

5)

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

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

We install it:

```
yum -y install libreoffice libreoffice-headless
```

6)

----- **Installation of Ghostscript, necessary packages and libraries** -----

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

(Only one line with space between 1<sup>a</sup> and 2<sup>a</sup>)

```
yum install -y libjpeg libjpeg-devel ghostscript freetype freetype-devel unzip gcc gcc-c++ ncurses
ncurses-devel make zlib zlib-devel libtool bison bison-devel openssl-devel bzip2 bzip2-devel file-
roller git autoconf automake pkgconfig tomcat-native nmap nano
```

By a script we should compile Ghostscript 9.25, free of security hole:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ghostscript.sh
```

```
chmod +x ghostscript.sh
```

...and run it:

```
./ghostscript.sh
```

...when be finished will announce it: **GhostScript compilation is Finished!**

```
rm -Rf /opt/ghostscript-9.25
```

7)

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

**ImageMagick**, work the images files jpg, png, gif, etc. We install it and some libraries:

```
yum install -y ImageMagick giflib giflib-devel giflib-utils
```

**Sox**, work the sound. Will compile and install it:

```
wget http://ftp.icm.edu.pl/packages/sox/14.4.2/sox-14.4.2.tar.gz
```

```
tar xzvf sox-14.4.2.tar.gz
```

```
cd /opt/sox-14.4.2
```

```
./configure
```

```
make && make install
```

```
cd /opt
```

8)

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

OpenMeetings even need Adobe Flash Player for cam.

```
yum install -y flash-plugin
```

9)

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

FFmpeg will work with video. Will install a libraries and vlc to play the recordings.

```
yum install -y glibc alsa-lib-devel faac faac-devel faad2 faad2-devel gsm gsm-devel imlib2 imlib2-  
devel lame-devel vorbis-tools theora-tools libvpx-devel vlc cmake mercurial nasm curl git
```

This ffmpeg compilation is based on this url, and the file versions are updated 15-10-2018:

<https://trac.ffmpeg.org/wiki/CompilationGuide/Centos>

Download the script i've made, to compile and install ffmpeg on Centos 6.10. It is tested and is ok.

The result of any recording we do in OpenMeetings, will be in mp4 format.

Will spend about 30 minutes the complete compilation.

When is finished, a text will announce it:

**FFmpeg Compilation isFinished!**

So, we download the script:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_centos6.sh
```

...concede execution permission to it:

```
chmod +x ffmpeg_centos6.sh
```

...and run it (be connected to Internet).

```
./ffmpeg_centos6.sh
```

When be finished, please, go to **step 10**).

All the compiled files will be installed in: /usr/local/bin

**10)**

----- **Installation MariaDB database server** -----

We build a file-repository to download MariaDB data server.

-- **For Centos 6.x 32bit** --:

```
sudo gedit /etc/yum.repos.d/MariaDB.repo
```

...copy and paste:

```
[mariadb]
name = MariaDB
baseurl = http://yum.mariadb.org/10.0/centos6-x86
gpgkey=https://yum.mariadb.org/RPM-GPG-KEY-MariaDB
gpgcheck=1
```

-- **For Centos 6.x 64bit** --:

```
sudo gedit /etc/yum.repos.d/MariaDB.repo
```

...copy and paste in:

```
[mariadb]
name = MariaDB
baseurl = http://yum.mariadb.org/10.0/centos6-amd64
gpgkey=https://yum.mariadb.org/RPM-GPG-KEY-MariaDB
gpgcheck=1
```

We install it:

```
yum -y install MariaDB-server MariaDB-client
```

...make a backup of the configuration file; and make a new one:

```
mv /etc/my.cnf /etc/my.bak
```

```
cp /usr/share/mysql/my-medium.cnf /etc/my.cnf
```

...and run MariaDB server:

```
service mysqld start
```

Give a password to mariadb root . Please, replace `new-password` by your own wish.

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

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

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

...will ask for the root password we does just now:

```
MariaDB [(none)]> CREATE DATABASE open406 DEFAULT CHARACTER SET 'utf8';
```

With this command, we has created a database called open406, though you can choose another name to your wish.

Now we create a user with all the permission on this open406 database.

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open406.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

```
* open406 ..... name of the database  
* hola ..... user for that database  
* 1a2B3c4D .....password of that user
```

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

Leave MariaDB:

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

11)

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

We'll install OpenMeetings in /opt/red5406. All the following information will be based on this directory.

Call to our folder of installation red5406.

Make the folder:

```
mkdir /opt/red5406
```

```
cd /opt/red5406
```

...and download the OpenMeetings file:

```
wget http://archive.apache.org/dist/openmeetings/4.0.6/bin/apache-openmeetings-4.0.6.zip
```

```
unzip apache-openmeetings-4.0.6.zip
```

...save the unloaded file to /opt:

```
mv apache-openmeetings-4.0.6.zip /opt
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.46/mysql-connector-java-5.1.46.jar
```

...and copy it to where must be:

```
cp /opt/mysql-connector-java-5.1.46.jar /opt/red5406/webapps/openmeetings/WEB-INF/lib
```

12)

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

We'll download the script to run Red5-OpenMeetings:

```
cd /opt
```



wget <https://cwiki.apache.org/confluence/download/attachments/27838216/red5-2>

...copy it to where must be:

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

...concede execution permission:

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

If you made the installation in any other different path to /opt/red5406, please edit the script and modify the line:

```
RED5_HOME=/opt/red5406
```

...to

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

13)

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

Restart mariadb:

```
service mysqld restart
```

...and run red5-OpenMeetings. Please, be connected to Internet, so the run will be quick:

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

...wait about 40 seconds for running red5 completely. Then, go with the browser to:

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

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

### OpenMeetings

**1. Enabling import of PDFs into whiteboard**


- Install **GhostScript** on the server, you can get more information on <http://pages.cs.wisc.edu/~ghost/> regarding installation. The instructions for installation can be found there, however on most linux systems you can get it via your favorite package managers (apt-get it).

**If you have further questions or need support in installation or hosting:**

**Community-Support:**  
[Mailing lists](#)

**Commercial-Support:**  
[Commercial-Support](#)

< > >> Finish

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

### 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 the name of the database

Check

< > >> Finish

...then, 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

Here we must introduce the database name, user name and his password we did at the step 10:

**Specify the name of the database = open406**

**Specify DB user = hola**

**Specify DB password = 1a2B3c4D**

Please, press

**OpenMeetings**

**Userdata**

Username

Userpass

E-Mail

User Time Zone

**Group(Domains)**

Name

Now, 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 the 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.

**OpenMeetings**

**Configuration**

Allow self-registering	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>
Mail-Referer	<input type="text" value="noreply@openmeetings.apache.org"/>
SMTP-Server	<input type="text" value="localhost"/>
SMTP-Server Port(default SmtP-Server Port is 25)	<input type="text" value="25"/>
SMTP-Username	<input type="text"/>
SMTP-Userpass	<input type="password"/>
Enable TLS in Mail Server Auth	<input type="checkbox"/>
Set inviter's email address as ReplyTo in email invitations	<input checked="" type="checkbox"/>
Default Language	<input type="text" value="inglés"/>

A valid example to configure the mail server with Gmail, is as follows:

(replace **john@gmail.com** with your real Gmail account)

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

Now press the button  and a new page will appear:

**OpenMeetings**

**Converters**

Document conversion DPI ⓘ

Document conversion JPEG Quality ⓘ

ImageMagick Path ⓘ

FFMPEG Path ⓘ


SoX Path ⓘ

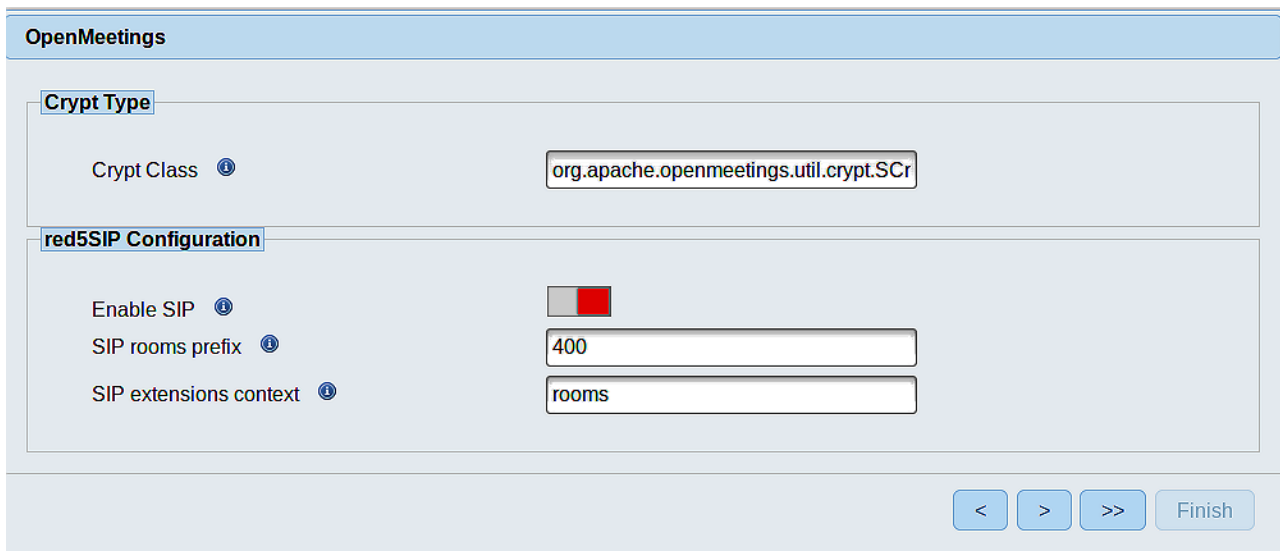
OpenOffice/LibreOffice Path for jodconverter ⓘ

*see also [Installation](#)*

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

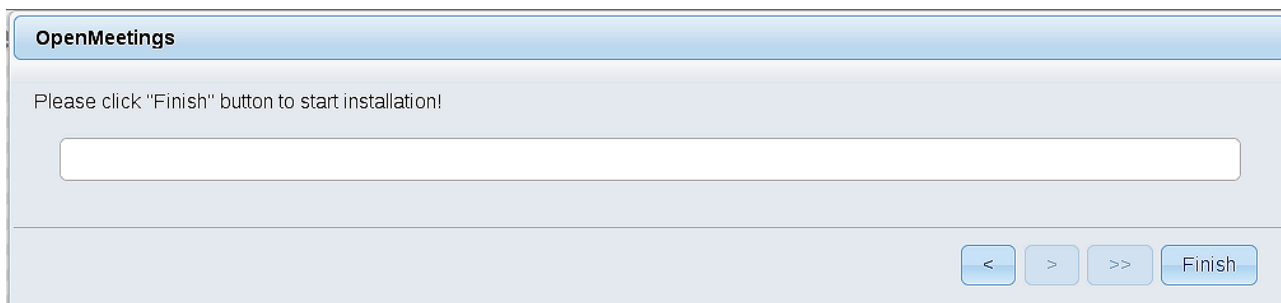
<b>ImageMagick Path</b>	==	/usr/bin
<b>FFMPEG Path</b>	==	/usr/local/bin
<b>SOX Path</b>	==	/usr/local/bin
<b>OpenOffice/LibreOffice Path for jodconverter</b>	==	/usr/lib/libreoffice <b>(32bits)</b>
	==	/usr/lib64/libreoffice <b>(64bits)</b>

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 light blue header. The main area is divided into two sections: 'Crypt Type' and 'red5SIP Configuration'. In the 'Crypt Type' section, there is a label 'Crypt Class' with a help icon and a text input field containing 'org.apache.openmeetings.util.crypt.SCr'. The 'red5SIP Configuration' section contains three items: 'Enable SIP' with a checked checkbox, 'SIP rooms prefix' with a text input field containing '400', and 'SIP extensions context' with a text input field containing 'rooms'. At the bottom right, there are four buttons: '<', '>', '>>', and 'Finish'.

Now push the button  and will show this window:

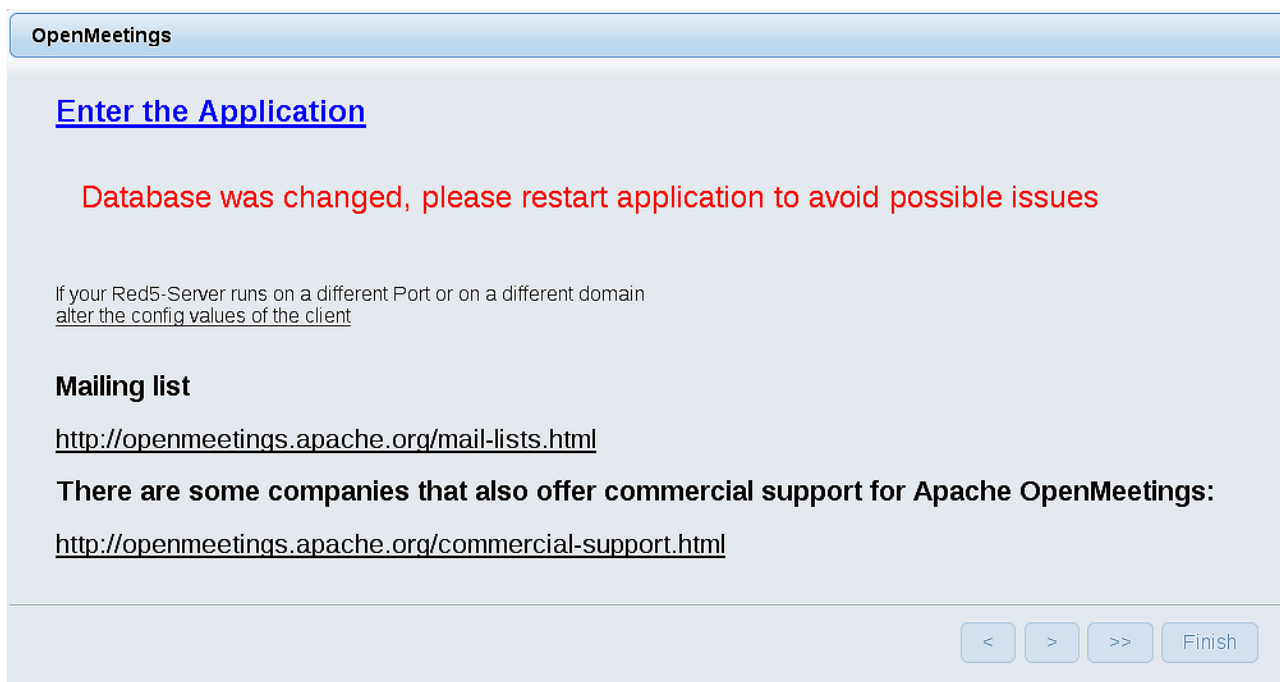


The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a light blue header. The main area contains the text 'Please click "Finish" button to start installation!' above a large empty text input field. At the bottom right, there are four buttons: '<', '>', '>>', and 'Finish'.

Clic **Finish** button...wait a seconds untill the tables are fill in the database.

When has concluded, this another page will appear. **Don't** clic on [Enter the Application](#). First is need it to restart the server. Please, be connected to Internet:

[/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>

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

The screenshot shows a "Login" form. It has a blue header bar with the text "Login". Below the header, there are two input fields: "Username or mail address" and "Password". To the right of the "Password" field is a checkbox labeled "Remember login". Below the "Password" field is a link "Forgotten your password?". To the right of the "Forgotten your password?" link is a link "Network testing". At the bottom right, there are two buttons: "Not a member?" and "Sign in".

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

...**Congratulations!**

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

<http://localhost:5080/openmeetings>

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

**1935 5080**

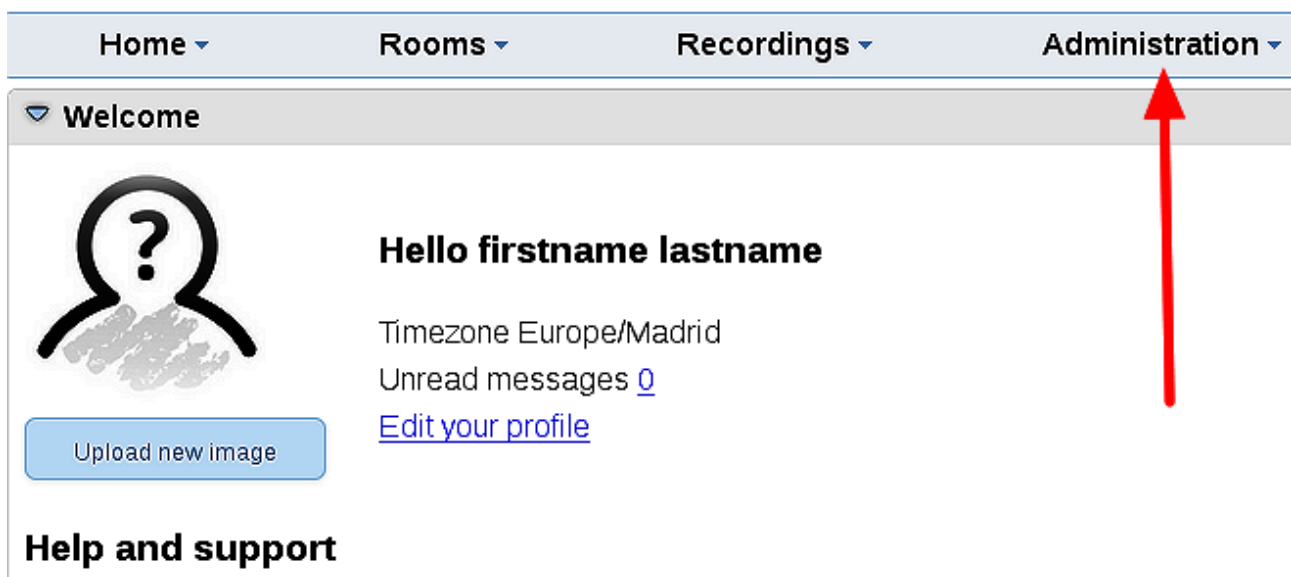
...in order that it could accede to OpenMeetings from other machines in Lan or Internet.

14)

----- **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 application interface. At the top, there is a navigation bar with four menu items: "Home", "Rooms", "Recordings", and "Administration". The "Administration" menu item is highlighted with a red arrow pointing upwards. Below the navigation bar, the main content area shows a "Welcome" message. On the left, there is a profile icon with a question mark and a button labeled "Upload new image". To the right of the icon, the text reads "Hello firstname lastname", "Timezone Europe/Madrid", "Unread messages 0", and a link "Edit your profile". Below the profile information, there is a section titled "Help and support".

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



Home ▾ Rooms ▾ Recordings ▾ Administration ▾

50 [Navigation icons] [Search]

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

**Configuration**

Type: string

Key: path.ffmpeg

Value:

Last update: Oct 17, 2017 5:54:57 PM

Updated by: toro

Comment: Path To FFMPEG

1 → 20 (path.ffmpeg)      2 → Value field      3 → Configuration panel

Chat

And this is all.



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

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



Thank you.

Alvaro Bustos