



Installation of Apache OpenMeetings 3.0.x on Mac El Capitan OS X

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.0.7 stable, that is to say will suppress his compilation. It is done step by step.

1-10-2015

Starting....

1)

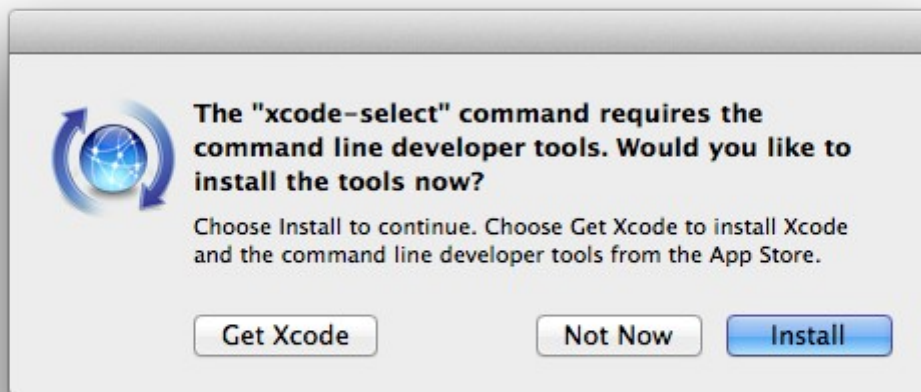
----- Installation of Command line developer tools -----

Should install in first place the developer tools, that will help us to compile the sources.

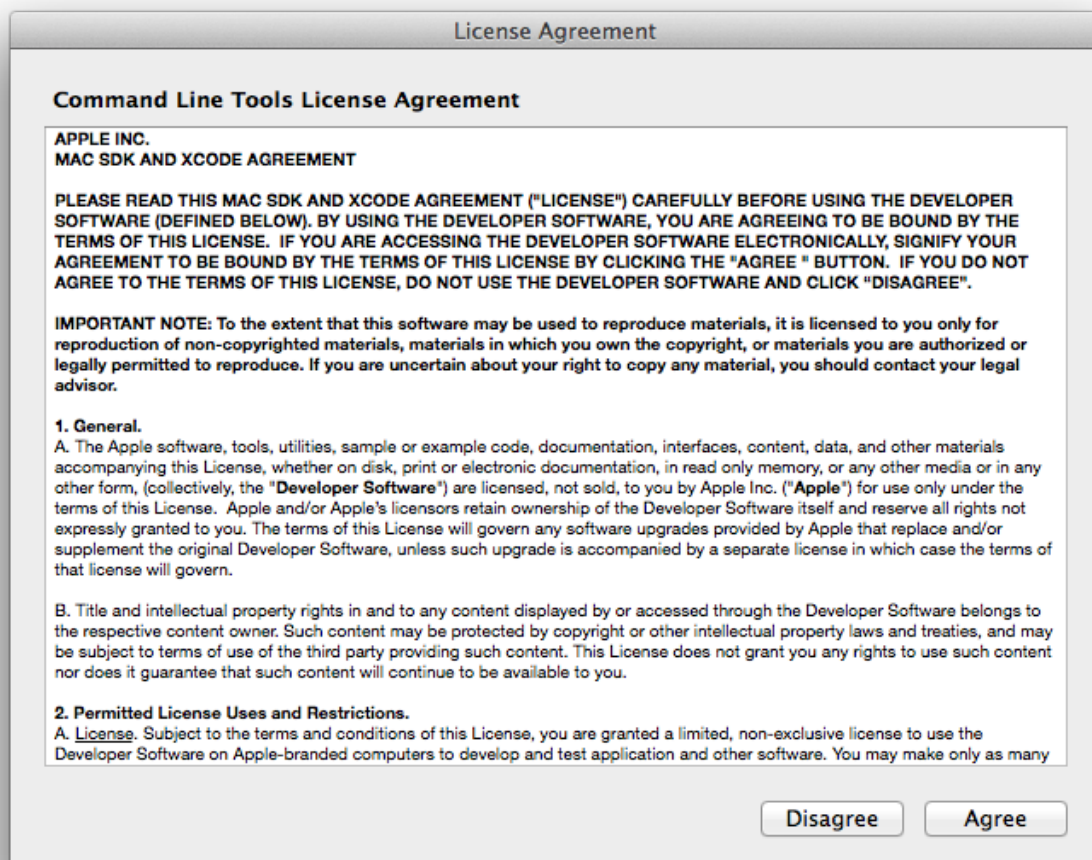
Run the shell as administrator, not as root, and install:

`xcode-select --install`

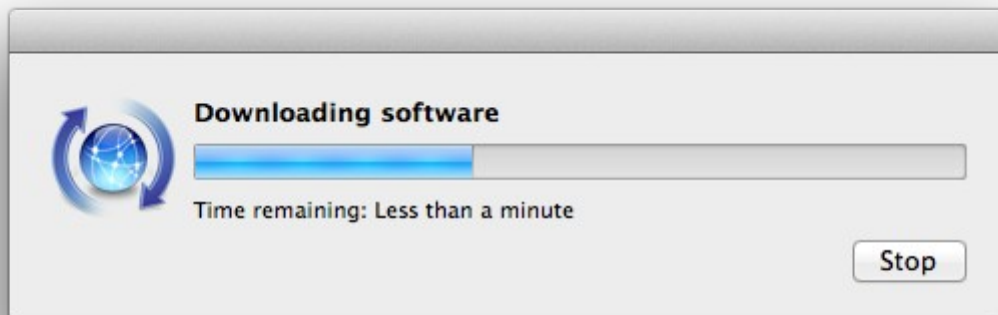
...will open a window informing:



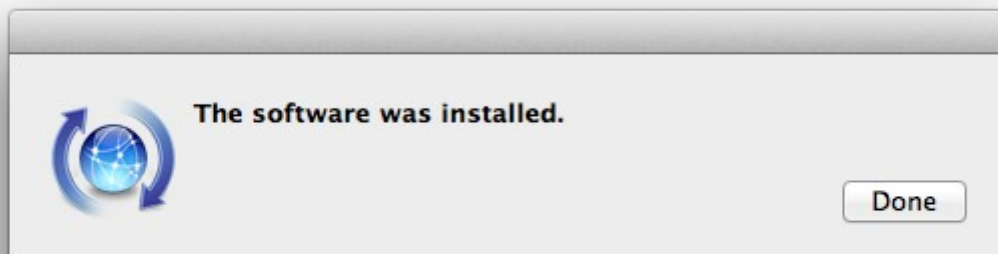
clie **Install** button only, and will open other window. clic **Agree** button



...and will download and install the software



...telling when it finished



...clic **Done**.

2)

----- Installation of Homebrew -----

Homebrew install software. It is on Mac the same that apt-get on Debian and yum on Centos or Fedora, for example. Should install it:

```
ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

brew doctor

...and update:

brew update

3)

----- Installation of need it software -----

Will install wget to download files, and ghostscript:

brew install wget ghostscript

4)

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

Java is need it to work with Apache OpenMeetings. Will install Oracle Java 1.8:

Please visit:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html?ssSourceSiteId=otnes>

...clik on:

Agree and proceed

...check:

Accept License Agreement

...and download the file called:

jdk-8u60-macosx-x64.dmg

Once unloaded the file, double clic on it and follow the installation process by default.

5)

----- Installation of OpenOffice -----

OpenOffice is need it to convert the office files uploaded to pdf.

To download please visit:

<http://www.openoffice.org/download/>

...select and download:

OS X (version >= 10-7) (DMG) language 4.1.1

Download full installation

Do double clic on the unloaded file: **Apache_OpenOffice_4.1.1_MacOS_x86-64_install....**
and will open this window:



...please, drag **OpenOffice** icon to right, to **Applications** folder icon.

6)

----- **Installation of ImageMagick, Sox, Swftools and Vlc** -----

ImageMagick work with the image files as png, jpg, gif, etc.

Sox work about sound.

[brew install imagemagick sox](#)

ImageMagick and Sox will be installed in: /usr/local/bin

Swftools convert images and pdf files to flash files (swf). These flash files will be showing in the whiteboard. Download from here:

<https://flexpaper-desktop-publisher.googlecode.com/files/swftools-0.9.2-1-osx10.6.dmg>

...clie on [swftools-0.9.2-1-osx10.6.dmg](#) file unloaded and install by default.

Swftools will be installed in: /opt/local/bin

Vlc is the player for the video files we'll recording.

[brew install Caskroom/cask/vlc](#)

7)

----- **FFMPEG compilation** -----

Ffmpeg work about video. We'll compile it. For it base on a script, an excellent work of Hunter at this url:

<http://hunterford.me/compiling-ffmpeg-on-mac-os-x/>

...as it is doesn't works with OpenMeetings. Then i have modiflicated the script and now it works rightly. Also is updated. Should install some paquets before to run it:

[brew install mercurial cmake](#)

The script will download, compile and install ffmpeg automatically.

Please, download it from here, the instructions to run it are inside the zip:

https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_compile_Yosemite_OSX.zip?version=4&modificationDate=1443530337875&api=v2

...run it and after the compilation is finished you can go to **step 8)**

But if you prefer copy and paste, i **do not advise**, leave the text script.
Please respect the spaces between the text blocks when copy. Will ask for password during installation, attention!

```
nano /Users/you-user/ffmpeg-mac.sh
```

...modify .../**you-user**/... by your real user name.

Copy **from here**:

```
# Create a temporary directory for sources.
```

```
SOURCES=$(mktemp -d /tmp/hola)
```

```
cd $SOURCES
```

```
# Download the necessary sources.
```

```
curl -#LO http://sourceforge.net/projects/opencore-amr/files/fdk-aac/fdk-aac-0.1.4.tar.gz
```

```
curl -#LO http://downloads.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz
```

```
curl -#LO http://downloads.xiph.org/releases/ogg/libogg-1.3.2.tar.gz
```

```
curl -#LO http://pkg-config.freedesktop.org/releases/pkg-config-0.28.tar.gz
```

```
curl -#LO http://downloads.xiph.org/releases/vorbis/libvorbis-1.3.5.tar.gz
```

```
curl -#LO http://downloads.xiph.org/releases/theora/libtheora-1.1.1.tar.bz2
```

```
# curl -#LO http://downloads.sourceforge.net/project/opencore-amr/vo-amrwbenc/vo-amrwbenc-0.1.1.tar.gz
```

```
curl -#LO http://www.tortall.net/projects/yasm/releases/yasm-1.3.0.tar.gz
```

```
curl -#LO http://storage.googleapis.com/downloads.webmproject.org/releases/webm/libvpx-1.4.0.tar.bz2
```

```
curl -#LO ftp://ftp.videolan.org/pub/x264/snapshots/last\_stable\_x264.tar.bz2
```

```
hg clone https://bitbucket.org/multicoreware/x265
```

```
curl -#LO http://downloads.xvid.org/downloads/xvidcore-1.3.3.tar.gz
```

```
# curl -#LG -d "p=ffmpeg.git;a=snapshot;h=HEAD;sf=tgz" -o ffmpeg.tar.gz http://git.videolan.org/
```

```
curl -#LO http://ffmpeg.org/releases/ffmpeg-2.8.tar.bz2
```

```
# Unpack files
```

```
for file in `ls ${SOURCES}/*.tar.*`; do
```

```
    tar -xzf $file
```

```
    rm $file
```

```
done
```

```
cd fdk-aac-*/
```

```
CFLAGS="-D__unix__" ./configure && make -j 4 && sudo make install; cd ..
```

```
cd lame-*/
```

```
./configure && make -j 4 && sudo make install; cd ..
```

```
cd libogg-*/
```

```
./configure && make -j 4 && sudo make install; cd ..
```

```
cd pkg-config-*/
```

```
./configure && make -j 4 && sudo make install; cd ..
```

```

cd libvorbis-*/
./configure --disable-oggtest --build=x86_64 && make -j 4 && sudo make install; cd ..

cd libtheora-*/
./configure --disable-oggtest --disable-vorbistest --disable-examples --disable-asm
make -j 4 && sudo make install; cd ..

# cd vo-amrwbenc-*/

# ./configure && make -j 4 && sudo make install; cd ..

cd yasm-*/
./configure && make -j 4 && sudo make install; cd ..

cd libvpx-*/
./configure --enable-vp8 --enable-pic && make -j 4 && sudo make install; cd ..

cd x264-*
CFLAGS="-I. -fno-common -read_only_relocs suppress" ./configure --enable-pic --enable-shared
&& make -j 4 && sudo make install; cd ..

cd x265/build/linux
cmake -G "Unix Makefiles" -DENABLE_SHARED:bool=off ../../source && make && make
install; cd /tmp/hola

cd xvidcore/build/generic
./configure --disable-assembly && make -j 4 && sudo make install; cd ../../..

# For Lion, we have to change which compiler to use (--cc=clang).
# If you're building on Snow Leopard, you can omit this flag so it defaults to gcc.
cd ffmpeg-*/
CFLAGS="-DHAVE_LRINTF" ./configure --pkg-config-flags="--static" --enable-nonfree
--enable-gpl --enable-version3 --enable-postproc --enable-swscale --enable-avfilter --enable-
libmp3lame --enable-libvorbis --enable-libtheora --enable-libfreetype --enable-libfdk-aac --enable-
libxvid --enable-libx264 --enable-libx265 --enable-libvpx --enable-hardcoded-tables --enable-
shared --enable-threads --disable-indevs --cc=clang && make -j 4 && sudo make install

# --enable-libvo-amrwbenc

# FFMpeg creates MP4s that have the metadata at the end of the file.
# This tool moves it to the beginning.
cd tools
gcc -D_LARGEFILE_SOURCE qt-faststart.c -o qt-faststart
sudo mv qt-faststart /usr/local/bin

....to here.

```

Once copied and pasted, clic **Ctrl+X** and will ask to save, clic **Y** and after this clic **Return** (Enter) to exit. Concede execution permission:

```
chmod +x /Users/you-user/ffmpeg-mac.sh
```


...remember modify .../you-user/....by your real user name

...and execute the script to download, compile and intall ffmpeg:

```
cd /Users/you-user
```

```
./ffmpeg-mac.sh
```

...be patience and wait untill is finished. Some times will look it is stoped...don't touch anything and wait. Once finished, the installed files are in /usr/local/bin

8)

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

Flash Player even is need it for rooms. Download and install it:

http://fpdownload.macromedia.com/pub/flashplayer/latest/help/install_flash_player_osx.dmg

...clie on the [install_flash_player_osx.dmg](#) file and install it by default.

9)

----- Installation of Jodconverter -----

Jodconverter work to convert uploaded files. (Remember modify you-user by your real user name).

```
cd /Users/you-user
```

```
wget http://jodconverter.googlecode.com/files/jodconverter-core-3.0-beta-4-dist.zip
```

```
unzip jodconverter-core-3.0-beta-4-dist.zip
```

10)

----- Installation of MySQL -----

We'll use MySQL as data server. Install it:

```
brew install mysql
```

if you get this error: **Error: The `brew link` step did not complete successfully**, do this:

```
sudo chown -R $(whoami) /usr/local
```

```
brew link mysql
```

...if is not that error then don't do it.

Once finished, run MySQL:

```
mysql.server start
```

...and give a password to root of MySQL:

```
mysql -u root mysql
```

...modify **your_new_password** by the password you like it:

```
mysql> update user set password=PASSWORD('your_new_password') where user='root';
```

```
mysql> flush privileges;
```

...and out:

```
mysql> quit
```

11)

----- Make a data-base for OpenMeetings -----

Should make a data.base for OpenMeetings.

Run MySQL if not:

```
mysql.server start
```

...accede:

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

...will ask for the password just we made it, and now we'll make our data-base:

```
mysql> CREATE DATABASE open307 DEFAULT CHARACTER SET 'utf8';
```

...also we make an user with a password for this data-base:

(One line only with a space between both)

```
mysql> GRANT ALL PRIVILEGES ON open307.* TO 'openmeetings'@'localhost'  
IDENTIFIED BY '123456' WITH GRANT OPTION;
```

mysql> quit

- **open307** ... is the data-base name
- **openmeetings** ... is the name of the user for this data-base
- **123456** ... is the password of **openmeetings** user.

If you like it can modify these data, but remember it!

12)

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

Well, we are at the installation of OpenMeetings. We'll do it in: (Remember modify **you-user**)

/Users/**you-user**/red5307

...then make the folder:

```
mkdir /Users/you-user/red5307
```

...remember always modify .../**you-user**/... by your real user name.

Download Apache-OpenMeetings file to the installation folder:

```
cd /Users/you-user/red5307
```

```
wget http://apache.rediris.es/openmeetings/3.0.7/bin/apache-openmeetings-3.0.7.zip
```

```
unzip apache-openmeetings-3.0.7.zip
```

...save the unloaded file moving it to your home:

```
mv apache-openmeetings-3.0.7.zip /Users/you-user
```

Download and install the connector file between OpenMeetings and MySQL:

```
cd /Users/you-user
```

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.36/mysql-connector-java-5.1.36.jar
```

...and copy it to his place:

(In only one line with a space between both)

```
cp /Users/you-user/mysql-connector-java-5.1.36.jar
/Users/you-user/red5307/webapps/openmeetings/WEB-INF/lib
```

13)

----- Configuration of the data-base on OpenMeetings -----

We'll configure the file that do connect OpenMeetings with MySQL.

```
cd /Users/you-user/red5307/webapps/openmeetings/WEB-INF/classes/META-INF
mv persistence.xml persistence.xml-ori
mv mysql_persistence.xml persistence.xml
```

(In only one line without space between both)

```
nano /Users/you-user/red5307/webapps/openmeetings/WEB-INF/classes/META-
INF/persistence.xml
```

...**modify the line:**

```
, Url=jdbc:mysql://localhost:3306/openmeetings
```

...to

```
, Url=jdbc:mysql://localhost:3306/open307
```

...is the name of our data-base we made.

...**modify the line:**

```
, Username=root
```

...to

```
, Username=openmeetings
```

...is the user name we made for our data-base.

...**modify the line:**

, Password=" />

...to

, Password=123456" />

...is the password we made for the user called "openmeetings".

If you have choose any other name for the user, password or data-base, here is where to type it.

clie **Ctrl+X**, will ask to save, clie **Y** and to exit clie **Return** (Enter.)

Protect the file:

(In only one line without space between both)

`chmod 640 /Users/you-user/red5307/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml`

...remember modify .../you-user/...by your real user name.

14)

----- Script to run red5-OpenMeetings -----

I supress to leave here the text script because copy and paste will give errors.
So please download the script to run-stop red5-OpenMeetings.

`cd /Users/you-user`

(In only one line without a space)

`wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-mac?version=2&modificationDate=1443596055000&api=v2`

...once is unloaded press **Ctrl+c**

Rename the script:

`mv red5-mac?version=2 red5-mac`

It is necessary to modify something inside the script. We edit it and type your real user name:

`nano /Users/you-user/red5-mac`

...the line:

`export RED5_HOME=/Users/you-user/red5307`

...press **Ctrl+x** will ask to save, press **Y** and **Return** (Enter)

```
sudo su
```

```
cp /Users/you-user/red5-mac /opt
```

...concede execution permission:

```
chmod +x /opt/red5-mac
```

```
exit
```

15)

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

Begin with the interface of OpenMeetings.

Run MySQL, if not:

```
mysql.server start
```

...and run red5-OpenMeetings (maybe in other shell window):

```
/opt/red5-mac start
```

...wait a seconds untill is completely running and after this, with the browser go to:

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

...will show this window:



OpenMeetings

OpenMeetings - Installation

1. Enabling Image Upload and import to whiteboard

- Install **ImageMagick** on the server, you can get more information on <http://www.imagemagick.org> regarding installation. The instructions for installation can be found there <http://www.imagemagick.org/script/binary-releases.php>, however on most linux systems you can get it via your favorite package managers (apt-get it)

2. 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).
- Install **SWFTools** on the server, you can get more information on <http://www.swftools.org/> regarding installation. Some of the Linux distributions already have it in there package manager see <http://packages.debian.org/unstable/utils/swftools>, the recommended version of **SWFTools** is 0.9 as prior version have a bug that does lead to wrong object dimensions in the Whiteboard

3. Enabling import of .doc, .docx, .ppt, .pptx, ... all Office Documents into whiteboard


- OpenOffice-Service** started and listening on port 8100, see [OpenOfficeConverter](#) for details

4. Enabling Recording and import of .avi, .flv, .mov and .mp4 into whiteboard

- Install **FFMpeg**. You should get FFMPEG in an up to date copy! For Windows you can download a Build for example from <http://ffmpeg.arozcru.org/builds/> Linux or OSX Users should be able to use one of the various Installation Instructions on the Web. You need to enable libmp3lame!

Install **GoX** <http://gox.sourceforge.net/>. You should install GoX in a up to date copy! GoX 1.2 you will NOT work!

...click **Next** (bottom page) and show the base.data configuration we made in step 10,



OpenMeetings

OpenMeetings - Installation

DB configuration

Recommendation for production environment

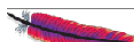
By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MySQL, PostgreSQL, IBM DB2, MSSQL or Oracle

Choose DB type	MySQL
Specify DB host	localhost
Specify DB port	3306
Specify the name of the database	open306
Specify DB user	openmeetings
Specify DB password	123456

Check

< Previous Next > Last Finish

...click **Next** and will appear this other page:



OpenMeetings

OpenMeetings - Installation

Userdata

Username	<input type="text"/>
Userpass	<input type="text"/>
EMail	<input type="text"/>
User Time Zone	Europe/Madrid

Organisation(Domains)

Name	<input type="text"/>
------	----------------------

< Previous Next > Last Finish

...here we must to introduce necessarily, to be able to continue, the following:

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

Userpass = password ...for the previous user.

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

User Time Zone = Country where is this server

Organisation(Domains)

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

Clic **Last** button and in the new page clic **Finish**.

**OpenMeetings**

OpenMeetings - Installation

Please click "Finish" button to start installation!

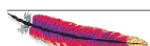
...wait until is finished...

**OpenMeetings**

OpenMeetings - Installation

Please wait, installation in progress

...and will appear this page:



OpenMeetings

OpenMeetings - Installation

[Enter the Application](#)

If your Red5-Server runs on a different Port or on a different domain
[alter the config values of the client](#)

Mailing list

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


There are some companies that also offer commercial support for Apache OpenMeetings:

<http://openmeetings.apache.org/commercial-support.html>

< Previous Next > Last Finish

Clic on [Enter the Application](#)

...and will take you to the enter of OpenMeetings:



OpenMeetings

Login

Username or mail address

Password

☐ Remember login

[Forgotten your password?](#) [Network testing](#)

[Not a member?](#) [Sign in](#)

Introduce the user's name and the password that you have chosen during the installation and...

Congratulations!

The next time that you likes to accede OpenMeetings will be:

<http://localhost:5080/openmeetings>

Remember to open in the server these three ports:

5080 1935 8088

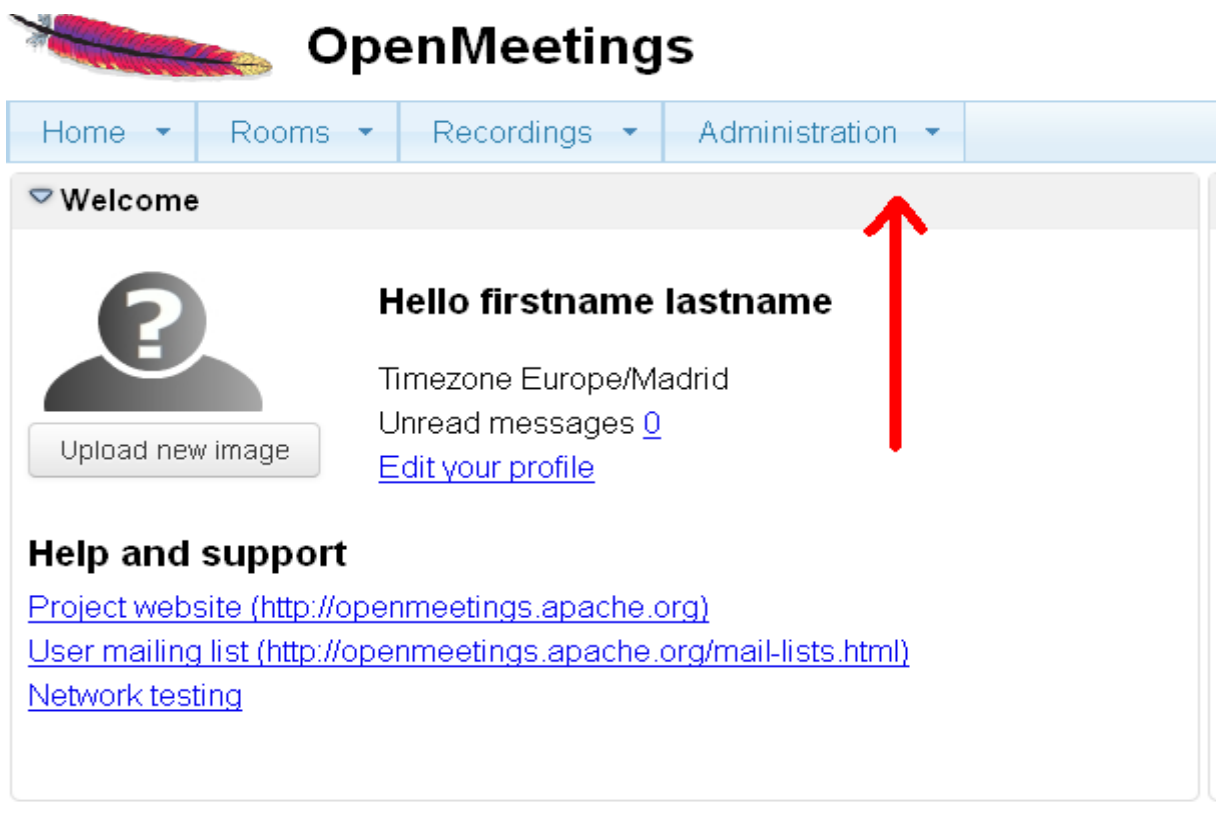
...in order that it could accede to OpenMeetings from other machines.

16)

----- **Configuration of OpenMeetings** -----

Once you are in OpenMeetings please go to:

Administration → Configuration



...introduce the differents parameters:

The screenshot shows the OpenMeetings Administration interface. On the left is a table of configuration keys and values. On the right is a 'Configuration' form. Red arrows indicate the steps to edit the configuration:

- Arrow 1 points to the **ffmpeg_path** row in the table.
- Arrow 2 points to the **Value** field in the configuration form.
- Arrow 3 points to the **Key** field in the configuration form.

ID	Key	Value
4	default_group_id	1
5	default_domain_id	1
6	smtp_server	localhost
7	smtp_port	25
8	system_email_addr	noreply@openmeetings.apache.org
9	email_username	
10	email_userpass	
11	mail.smtp.starttls.enable	0
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default_lang_id	1
16	swftools_zoom	100
17	swftools_jpegquality	85
18	swftools_path	
19	imagemagick_path	
20	sox_path	
21	ffmpeg_path	
22	office.path	
23	jod.path	/opt/jod/lib
24	rss_feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user@ematem.com

Clic on: **swftools_path**...and to right in Value type: **/opt/local/bin**

Clic on: **imagemagick_path**...and to right in Value type: **/usr/local/bin**

Clic on: **sox_path**...and to right in Value type: **/usr/local/bin**

Clic on: **ffmpeg_path**...and to right in Value type: **/usr/local/bin**

Clic on: **office.path**...and to right in Value type : **/Applications/OpenOffice.app/Contents**

Clic on: **jod.path**...and to right in Value type: **/Users/you-user/jodconverter-core-3.0-beta-4/lib**
remember modify **.../you-user/...** by your real user name :)

Now there is OpenMeetings ready to work rightly.

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