



## **Installation of Apache OpenMeetings 3.0.x on Mac Yosemite OS X**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.0.6 stable, that is to say will suppress his compilation. It is done step by step.

28-5-2015

Starting....

1)

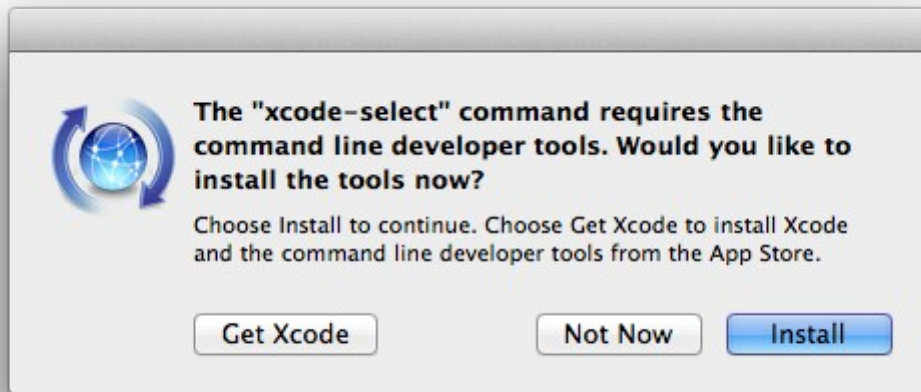
### **----- Installation of Command line developer tools -----**

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

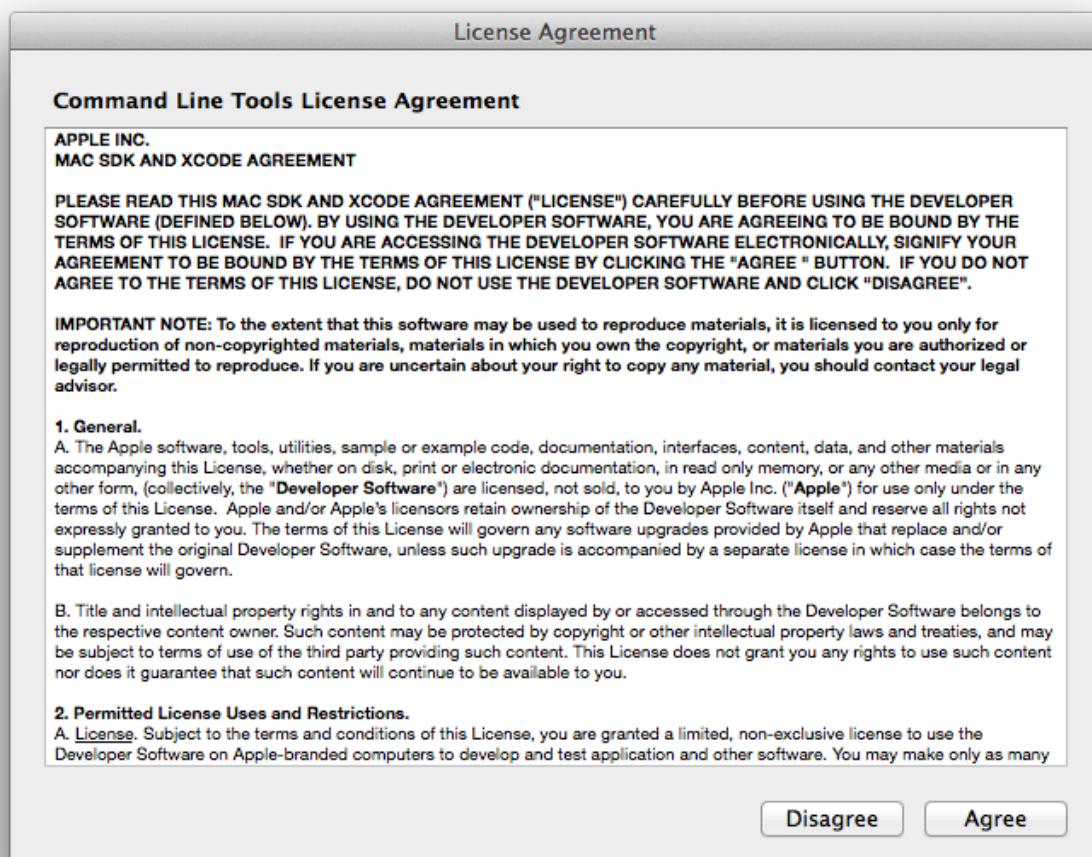
Run the shell as administrator, not as root, and install:

`xcode-select --install`

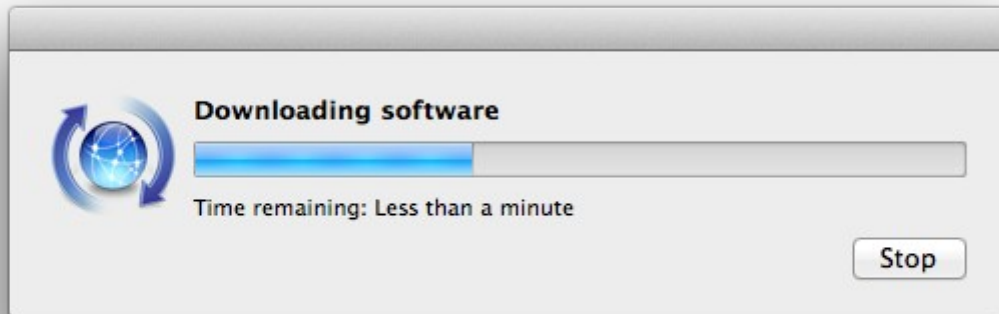
...will open a window informing:



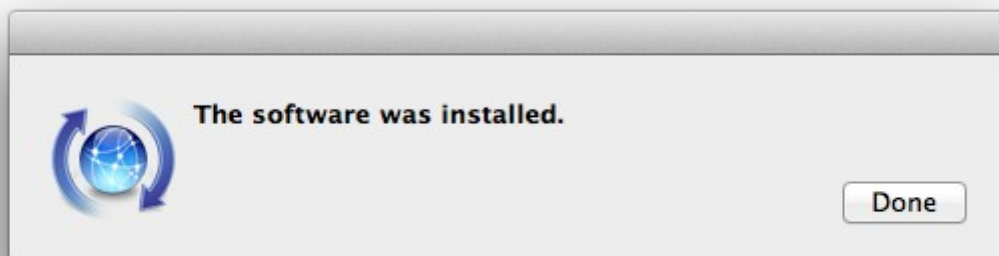
click **Install** button only, and will open other window. click **Agree** button



...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>

...clic on:

**Agree and proceed**

...check:

**Accept License Agreement**

...and download the file called:

**jdk-8u45-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 64-bit (x86-64) (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, drop **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.

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

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

`brew install imagemagick sox swftools`

All the installed files are in: /usr/local/bin

`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 doesn't works with OpenMeetings. Then i have modiflicated the script and now it works rightly. Also is updated.

So we'll make the script file called **ffmpeg.sh**. This script will download, compile and install ffmpeg automatically.

Please respect the spaces between the text blocks when copy. Will ask for password during installation, **attention!**

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

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

Copy **from here**:

```
# Create a temporary directory for sources.  
SOURCES=$(mktemp -d /tmp/XXXXXXXXXX)  
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\_x264.tar.bz2
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-2.6.3.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 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 --enable-nonfree --enable-gpl --enable-version3
--enable-postproc --enable-swscale --enable-avfilter --enable-libmp3lame --enable-libvorbis
--enable-libtheora --enable-libfdk-aac --enable-libxvid --enable-libx264 --enable-libvpx --enable-
hardcoded-tables --enable-shared --enable-pthreads --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.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.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 to Conference Rooms. Install it:

```
brew install Caskroom/cask/flash-player
```

...during the installation will ask for administrator password.

9)

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

Jodconverter work to convert uploaded files.

```
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
```

Once finished, run it:

```
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 open306 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 open306.* TO 'openmeetings'@'localhost'  
IDENTIFIED BY '123456' WITH GRANT OPTION;
```

```
mysql> quit
```

- **open306** ... 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:

```
/Users/you-user/red5306
```

...then make the folder:

```
mkdir /Users/you-user/red5306
```

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

Download Apache-OpenMeetings file to the installation folder:

```
cd /Users/you-user/red5306
```

```
wget http://apache.rediris.es/openmeetings/3.0.6/bin/apache-openmeetings-3.0.6.zip
```

```
unzip apache-openmeetings-3.0.6.zip
```

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

```
mv apache-openmeetings-3.0.6.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/5.1.35/mysql-connector-java-5.1.35.jar
```

...and copy it to his place:

(In only one line with a space between both)

```
cp /Users/you-user/mysql-connector-java-5.1.35.jar  
/Users/you-user/red5306/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/red5306/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/red5306/webapps/openmeetings/WEB-INF/classes/META-
INF/persistence.xml
```

**...modify the line:**

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

...to

```
, Url=jdbc:mysql://localhost:3306/open306
```

...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.

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

Protect the file:

(In only one line without space between both)

```
chmod 640 /Users/you-user/red5306/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml
```

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

14)

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

Now we'll make a script to run red5-OpenMeetings.

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

...copy and paste the text, but remember to modify on it **you-user** by your real user name.  
Copy **from here**:

```
#
#!/bin/sh -e
#
# Startup script for Red5
export RED5_HOME=/Users/you-user/red5306
start_red5="$RED5_HOME/red5.sh start"
stop_red5="$RED5_HOME/red5-shutdown.sh stop"
start() {
echo -n "Starting Red5: "
${start_red5} &
echo "done."
}
stop() {
echo -n "Shutting down Red5: "
${stop_red5}
echo "done."
}
case "$1" in
start)
start
;;
stop)
stop
;;
restart)
stop
sleep 10
start
;;
*)
```

```
echo "Usage: $0 {start|stop|restart}"  
esac  
exit 0
```

**...to here.**

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

We'll copy the script to /opt

```
sudo su
```

...will ask for administrator password:

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

...concede execution permission:

```
chmod +x /opt/red5
```

...and out from sudo su:

```
exit
```

**15)**

Begin with the interface of OpenMeetings.

Run MySQL, if not:

```
mysql.server start
```

...and run red5-OpenMeetings:

```
/opt/red5 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 **CaX** <http://www.cax-engine.com/>. You should install CaX in a up to date copy! CaX 4.0 will NOT work!

...clik **Next** (bottom page) and show the base.data configuration we made in step 10, page 9:



## 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	<input type="text" value="MySQL"/>
Specify DB host	<input type="text" value="localhost"/>
Specify DB port	<input type="text" value="3306"/>
Specify the name of the database	<input type="text"/>
Specify DB user	<input type="text"/>
Specify DB password	<input type="text"/>

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



## OpenMeetings

### OpenMeetings - Installation

**Userdata**

Username	<input type="text"/>
Userpass	<input type="text"/>
E-Mail	<input type="text"/>
User Time Zone	<input type="text" value="Europe/Madrid"/>

**Organisation(Domains)**

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

...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.

Go bottom page and clic the **Finish** button.

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





## OpenMeetings

### OpenMeetings - Installation

Please click "Finish" button to start installation!

< Previous   Next >   Last   **Finish**

...wait until is finished...



## OpenMeetings

### OpenMeetings - Installation

Please wait, installation in progress

< Previous   Next >   Last   Finish

...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](#)

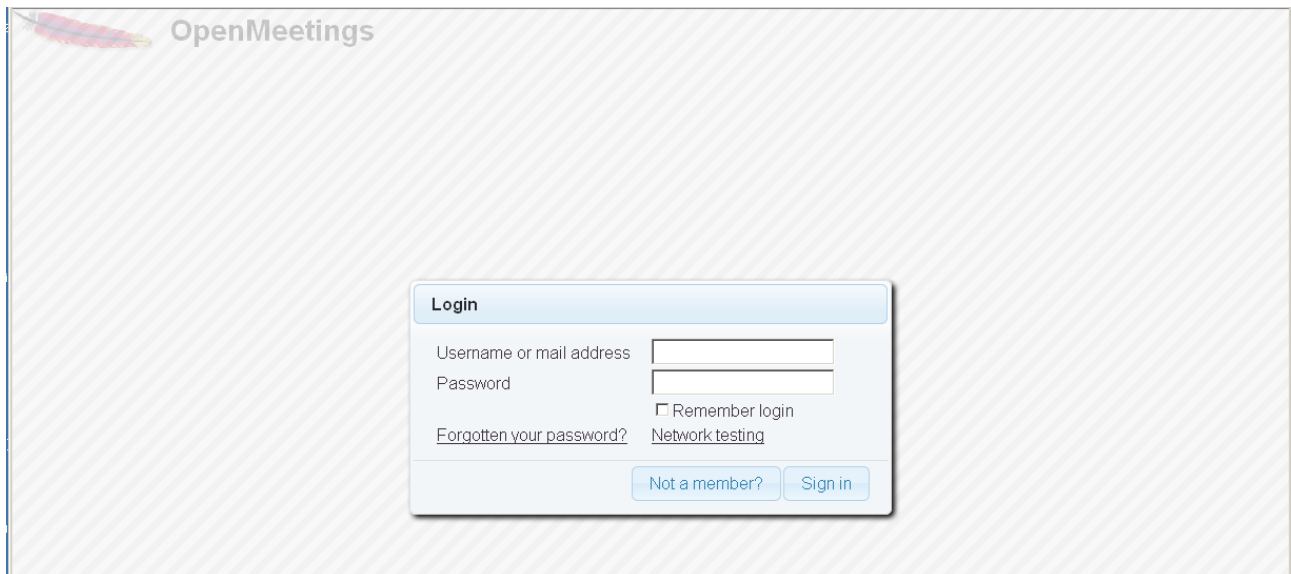
Mailing list  
<http://openmeetings.apache.org/mail-lists.html>

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:



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**



# OpenMeetings

Home ▾	Rooms ▾	Recordings ▾	Administration ▾
--------	---------	--------------	------------------

▼ **Welcome**



Upload new image

**Hello firstname lastname**

Timezone Europe/Madrid

Unread messages [0](#)

[Edit your profile](#)

**Help and support**

[Project website \(http://openmeetings.apache.org\)](http://openmeetings.apache.org)

[User mailing list \(http://openmeetings.apache.org/mail-lists.html\)](http://openmeetings.apache.org/mail-lists.html)

[Network testing](#)

...introduce the differentes path parameters:

Clic on: **swftools\_path**...and to right in Value type: **/usr/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 :)

The screenshot shows the OpenMeetings administration interface. A table lists configuration items, and a modal window is open for editing the 'ffmpeg\_path' item. Red annotations highlight the table row, the modal's value field, and the modal's title bar.

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@ferret-stem

The modal window 'Configuration' shows the following details for the 'ffmpeg\_path' item:

- Key: ffmpeg\_path
- Value: /usr/local/bin
- Last update: [empty]
- Updated by: [empty]
- Comment: Path To FFmpeg

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