



## **Installation of Apache OpenMeetings 3.2.1 on Mac El Capitan OS X 10.11.6**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.2.1 stable, that is to say will suppress his compilation. It is done step by step.

26-4-2017

Starting....

1)

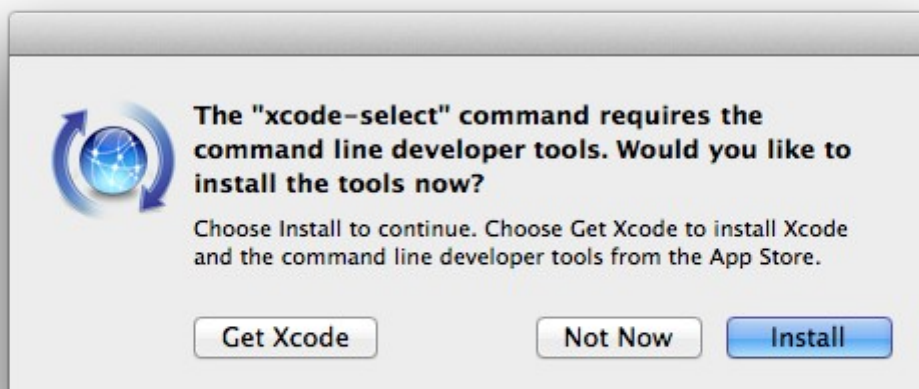
### **----- Installation of Command line developer tools -----**

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

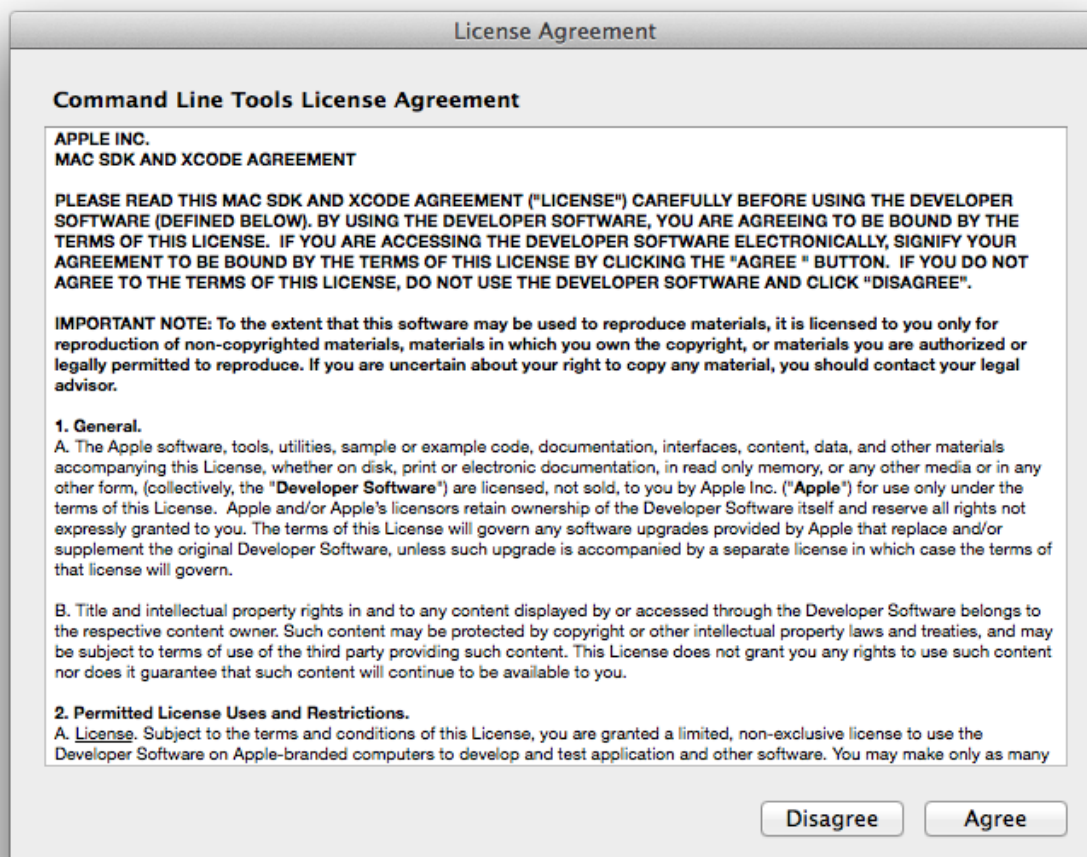
Run the shell as administrator, not as root, and install:

```
xcode-select --install
```

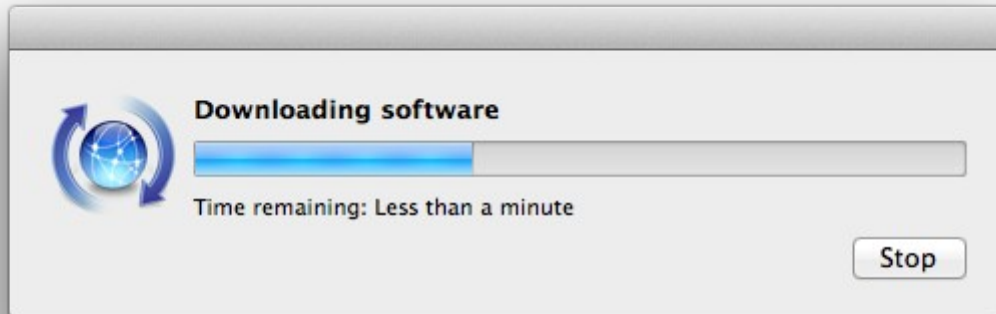
...will open a window informing:



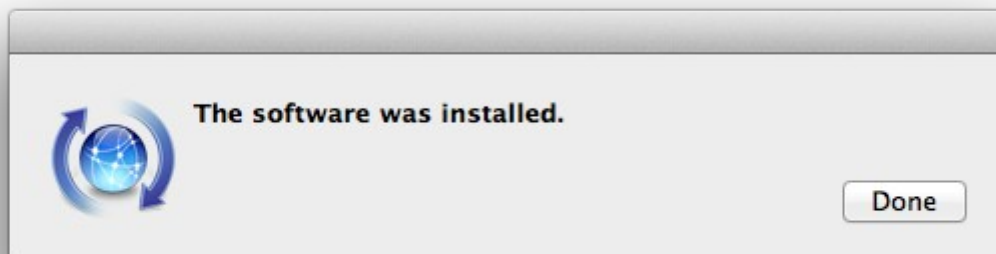
click **Install** button only, and will open other window. click **Agree** button



...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 or Ubuntu, yum on Centos or dnf on Fedora, for example. 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 paquets** -----

Will install wget to download files, and ghostscript. After the installation, will ask to run a commands. Attention!:

brew install wget ghostscript nmap

4)

----- **Installation of Oracle Java 1.8** -----

Java **1.8** is need it to work OpenMeetings **3.2.1**. Will install Oracle Java 1.8.

Please visit:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133211.html?ssSourceSiteId=otnes>

...clic on:

**Agree and proceed**

...check:

**Accept License Agreement**

...and download the file called:

**jdk-8u131-macosx-x64.dmg**

Once unloaded the file, do 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 4.1.3

Download full installation

Do clic on the unloaded file: **Apache\_OpenOffice\_4.1.3\_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. Install both:

`brew install imagemagick sox`

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

**Swftools**. OpenOffice convert to pdf the uploaded office files, and Swftools convert these pdf to swf, flash files, that later will show in the white board. Also convert jpg2swf, png2swf, gif2swf, etc. Don't install a newer version, maybe have not pdf2swf. Download from here:

<https://storage.googleapis.com/google-code-archive-downloads/v2/code.google.com/flexpaper-desktop-publisher/swftools-0.9.2-1-osx10.6.dmg>

...clic 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)

----- **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](http://fpdownload.macromedia.com/pub/flashplayer/latest/help/install_flash_player_osx.dmg)

...clic on the [install\\_flash\\_player\\_osx.dmg](#) file and install it by default.

8)

----- **FFmpeg compilation** -----

FFmpeg work about video. We'll compile it. For it base on this url:

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

...to which i've added x265. Don't build a script, because the number of steps it is minimum. The result of any recording we do in OpenMeetings, will be in mp4 format. Install some paquets and libraries:

(Only one line with space between both)

```
brew install automake fdk-aac git lame libass libtool libvorbis libvpx opus sdl shtool texi2html
theora wget x264 xvid yasm x265
```

We place at our home. Attention, modify **you-user** by your real username:

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

```
git clone --depth 1 git://source.ffmpeg.org/ffmpeg
```

```
cd ffmpeg
```

(Only one line with space between each one)

```
./configure --prefix=/usr/local --enable-gpl --enable-nonfree --enable-libass --enable-libfdk-aac
--enable-libfreetype --enable-libmp3lame --enable-libopus --enable-libtheora --enable-libvorbis
--enable-libvpx --enable-libx264 --enable-libxvid --enable-libx265
```

```
make (spend about 10 minutes)
```

```
sudo make install (will ask for the user password)
```

...ffmpeg it is installed in /usr/local/bin

9)

#### ----- Installation of MariaDB data server -----

Our data server will be MariaDB. We install it:

```
brew install mariadb
```

Once the installation is finished, run it:

```
mysql.server start
```

...and give a root MariaDB password. Please, modify **new-password** by one of your wish:

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

10)

#### ----- Build a data-base for OpenMeetings -----

Make a data.base for OpenMeetings.

Run MariaDB, 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:

```
MariaDB [(none)]> CREATE DATABASE open321 DEFAULT CHARACTER SET 'utf8';
```

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

(One line only with a space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open321.* TO 'hola'@'localhost'
IDENTIFIED BY '123456' WITH GRANT OPTION;
```

...and leave MariaDB:

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

- \* open321 ..... is the data-base name
- \* hola ..... is the name of the user for this data-base
- \* 123456 ..... is the password of that user.

If you like it can modify these data, but remember it! Will need it later.

11)

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

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

```
/Users/you-user/red5321
```

...then make the folder:

```
mkdir /Users/you-user/red5321
```

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



Download Apache-OpenMeetings file to the installation folder:

```
cd /Users/you-user/red5321
```

```
wget http://apache.miloslavbrada.cz/openmeetings/3.2.1/bin/apache-openmeetings-3.2.1.zip
```

```
unzip apache-openmeetings-3.2.1.zip
```

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

```
mv apache-openmeetings-3.2.1.zip /Users/you-user
```

Download and install the connector file between OpenMeetings and MySQL:

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

(Only one line without space between both)

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.39/mysql-connector-java-5.1.39.jar
```

...and copy it to his place:

(Only one line with a space between both)

```
cp /Users/you-user/mysql-connector-java-5.1.39.jar  
/Users/you-user/red5321/webapps/openmeetings/WEB-INF/lib
```

12)

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

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

(Only one line without space between both)

```
nano /Users/you-user/red5321/webapps/openmeetings/WEB-INF/classes/META-  
INF/mysql_persistence.xml
```

**Modify line 72:**

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

...to

```
, Url=jdbc:mysql://localhost:3306/open321?
```

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

**Modify line 77:**

```
, Username=root
```

...to

```
, Username=hola
```

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

**Modify line 78:**

```
, Password=" />
```

...to

```
, Password=123456" />
```

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

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, clic **Y** and to exit clic **Retutn** (Enter.)

Now, protect the file:

(Only one line without space between both)

```
chmod 640 /Users/you-user/red5321/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml
```

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

**13)**

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

I suppress 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
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-mac2
```

It is necessary to modify something inside the script. We edit it:

```
nano /Users/you-user/red5-mac2
```

...modify the line:

```
export RED5_HOME=/Users/you-user/red5321
```

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

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

We copy it to /opt:

```
sudo su
```

```
cp /Users/you-user/red5-mac2 /opt
```

...concede execution permission:

```
chmod +x /opt/red5-mac2
```

...and leave as superuser:

```
exit
```

14)

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

Begin with the interface of OpenMeetings.

Run MariaDB, if not:

```
mysql.server start
```

...and run red5-OpenMeetings from other window terminal. Please, be connected to Internet:

```
/opt/red5-mac2 start
```

...wait till the text “**clearSessionTable: 0**” it is the last in the shell. 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).
- 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

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

**Community-Support:**

[Mailing lists](#)

**Commercial-Support:**

[Commercial-Support](#)

<
>
>>
Finish

...push on > (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](#)

**Choose DB type** Apache Derby

**Specify the name of the database** openmeetings

**Specify DB user** user

**Specify DB password** secret


Check

<
>
>>
Finish

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

The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' tab selected. Under the heading 'Recommendation for production environment', there is a text block stating: 'By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MySQL, PostgreSQL, IBM DB2, MSSQL or Oracle'. Below this, there are several input fields: 'Choose DB type' is a dropdown menu set to 'MySQL'; 'Specify DB host' is a text box with 'localhost'; 'Specify DB port' is a text box with '3306'; 'Specify the name of the database' is a text box with 'open321'; 'Specify DB user' is a text box with 'hola'; and 'Specify DB password' is a text box with '123456'. A 'Check' button is located to the right of these fields. At the bottom of the window, there are navigation buttons: '<', '>', '>>', and 'Finish'.


...will show the data base configuration we made in step 12, or with your own modifications.

Please, press  button, and will go to:

The screenshot shows the 'OpenMeetings' application window with the 'Userdata' tab selected. It contains four input fields: 'Username', 'Userpass', and 'EMail' are text boxes, and 'User Time Zone' is a dropdown menu set to 'Europe/Madrid'. Below this, the 'Group(Domains)' tab is selected, showing a single 'Name' text box. At the bottom of the window, there are navigation buttons: '<', '>', '>>', and 'Finish'.

Now we must introduce the followings data:

**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  
**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.

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 (system_email_addr)</b>	==	<a href="mailto:john@gmail.com">john@gmail.com</a>
<b>SMTP-Server (smtp_server)</b>	==	<a href="mailto:smtp.gmail.com">smtp.gmail.com</a>
<b>SMTP-Server Port (default Smtip-Server Port is 25) (smtp_port)</b>	==	<a href="#">587</a>
<b>SMTP-Username (email_username)</b>	==	<a href="mailto:john@gmail.com">john@gmail.com</a>
<b>SMTP-Userpass (email_userpass)</b>	==	<a href="#">password of john@gmail.com</a>
<b>Enable TLS in Mail Server Auth</b>	==	<a href="#">Yes</a>

To select the language of your server OpenMeetings, please scroll on the line:

**Default Language** = [english](#)

...the rest we can leave as is. If necessary, can modify it as you like it:

**OpenMeetings**

**Configuration**

Allow self-registering (allow_frontend_register)	Yes
Send Email to new registered Users (sendEmailAtRegister)	No
New Users need to verify their EMail (sendEmailWithVerificationCode)	No
Default Rooms of all types will be created	Yes
Mail-Referer (system_email_addr)	noreply@openmeetings.apache.org
SMTP-Server (smtp_server)	localhost
SMTP-Server Port(default SmtP-Server Port is 25) (smtp_port)	25
SMTP-Username (email_username)	
SMTP-Userpass (email_userpass)	
Enable TLS in Mail Server Auth	No
Set inviter's email address as ReplyTo in email invitations (inviter.email.as.replyto)	Yes
Default Language	inglés
Default Font for Export [default_export_font]	TimesNewRoman

< > >> Finish

Now press the button  and a new page will appear:

**OpenMeetings**

**Converters**

SWFTools Zoom ⓘ	100	
SWFTools JPEG Quality ⓘ	85	
SWFTools Path ⓘ		Check
ImageMagick Path ⓘ		Check
FFMPEG Path ⓘ		Check
SoX Path ⓘ		Check
OpenOffice/LibreOffice Path for jodconverter ⓘ		Check

see also [Installation](#)

< > >> Finish

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

**SWFTools Path (Path)** == [/opt/local/bin](#)


**ImageMagick Path (Path)** == [/usr/local/bin](#)

**FFMPEG Path (Path)** == [/usr/local/bin](#)

**SOX Path (Path)** == [/usr/local/bin](#)

**OpenOffice/LibreOffice Path (Path) for  
jodconverter** == [/Applications/OpenOffice.app/Contents](#)

As you go introducing paths, you can check if they are correct by pressing the button labeled **Check**. If it does not display any error message, that is OK.

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:

**OpenMeetings**

**Crypt Type**

Crypt Class

You can use this default crypt type which is equal to PHP-MD5 function or BSD-Style encryption by using: **org.apache.openmeetings.util.crypt.MD5CryptImplementation** for more information or to write your own Crypt-Style see: [Custom Crypt Mechanism](#) You can edit this value later BUT previous created Users and Sessions might be not usable anymore

**red5SIP Configuration**

Enable SIP

Enable red5SIP integration

SIP rooms prefix

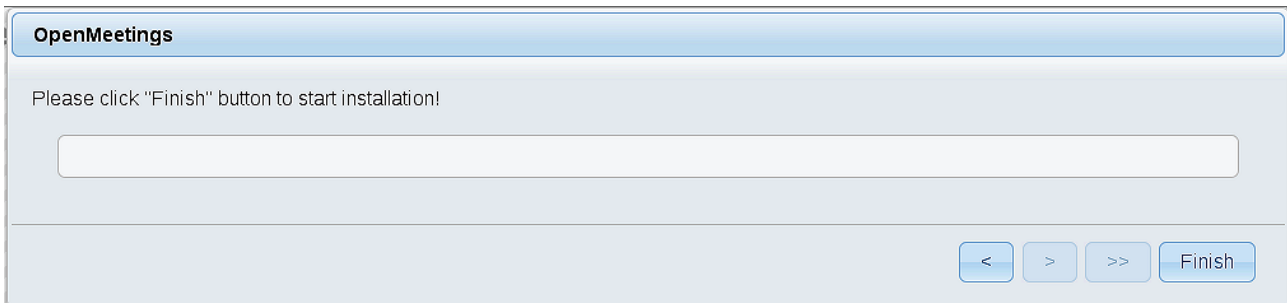
Prefix for phone number of conference rooms

SIP extensions context

Context of Asterisk extensions



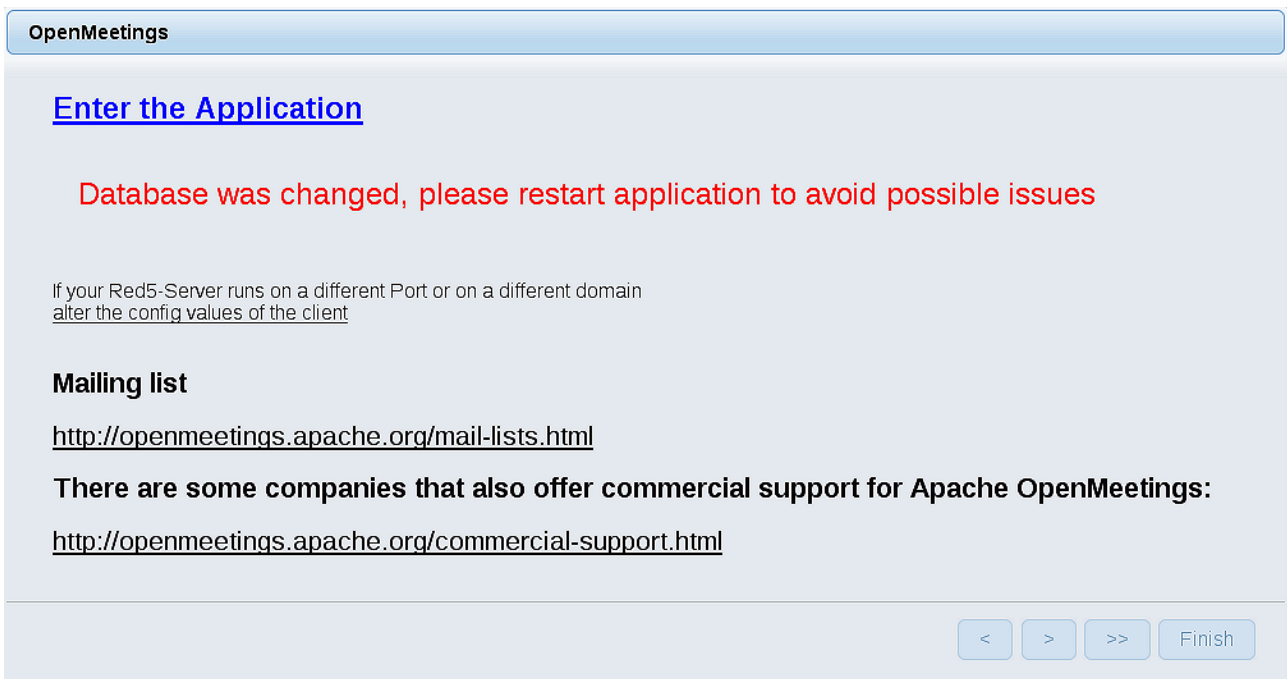
Now push the button  Will show this window:



Push **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 red5. Open a new terminal, and run this command (connected Internet):

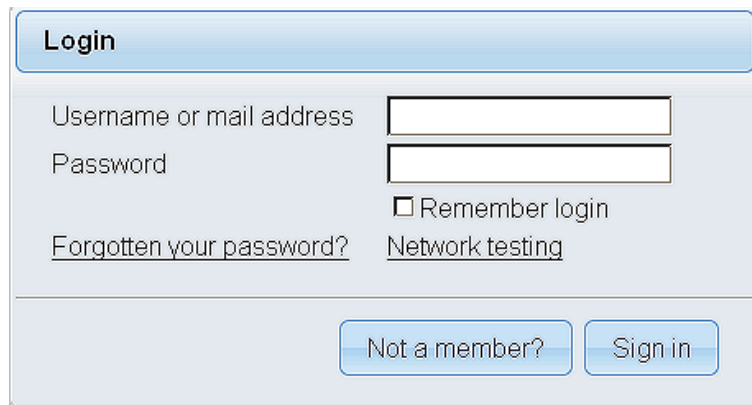
`/opt/red5-mac2 restart`



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 image shows a login form titled "Login". It contains the following elements:

- Username or mail address: [text input field]
- Password: [password input field]
- Remember login
- [Forgotten your password?](#)
- [Network testing](#)
- 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 access to OpenMeetings, will 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.

15)


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

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

**Administration → Configuration**

Home ▾ Rooms ▾ Recordings ▾ Administration ▾


Welcome



**Hello firstname lastname**

Timezone Europe/Madrid  
Unread messages 0  
[Edit your profile](#)

**Help and support**



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

ID	Key	Value
4	allow.oauth.register	1
5	default_group_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	

**Configuration**



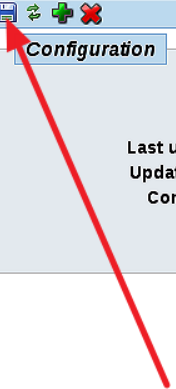
Key: swftools\_path

Value:

Last update:

Updated by:

Comment: Path To SWF-Tools

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