



## **Installation of Apache OpenMeetings 3.3.2 on macOS Sierra 10.12.6**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.3.2 stable, that is to say will suppress his compilation. It is done step by step.

22-9-2017

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.

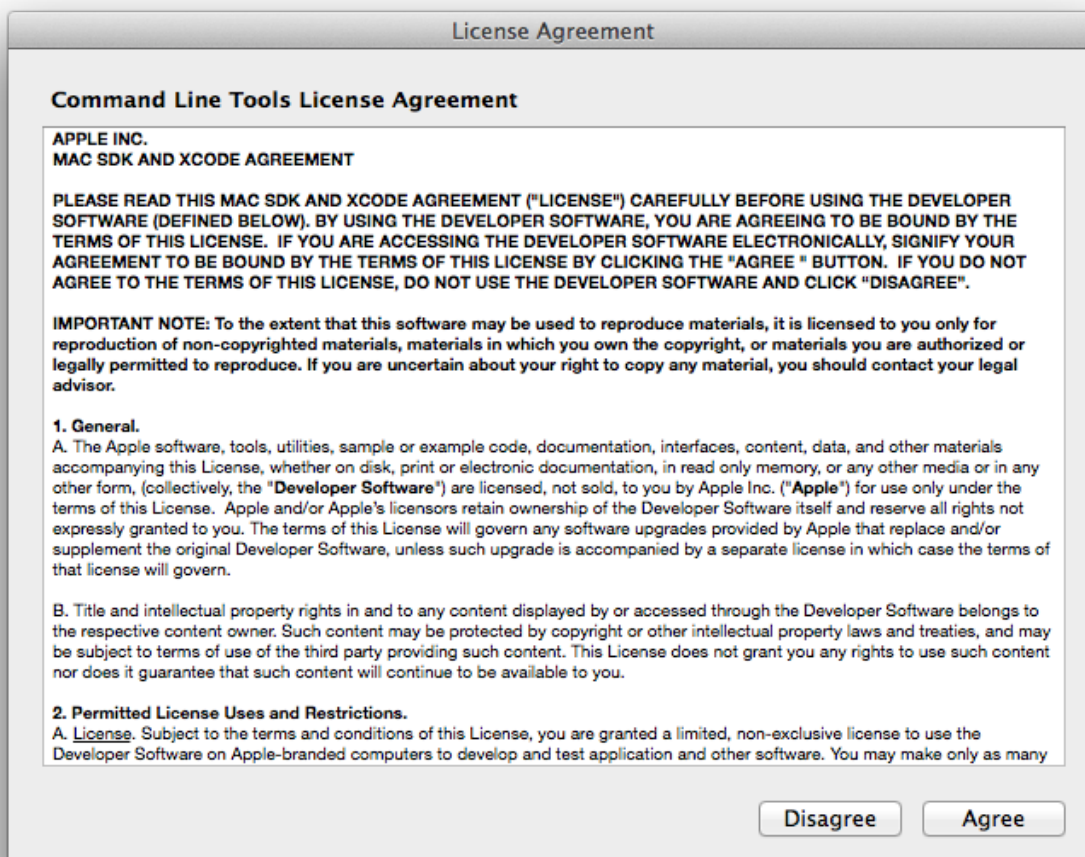
Run the shell as administrator, not as root, and install:

`xcode-select --install`

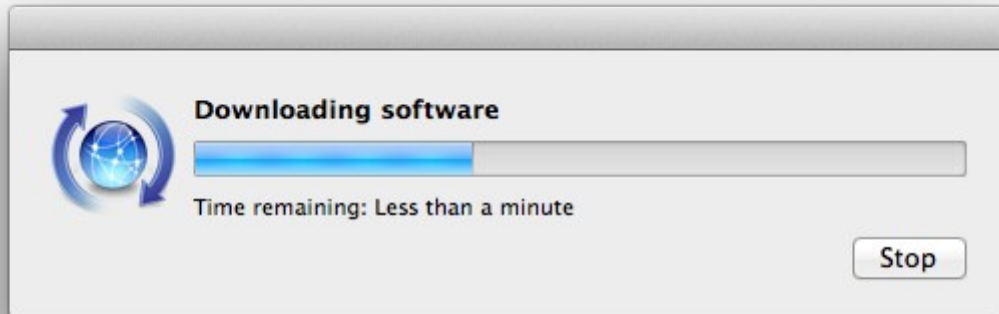
...will open a window informing:



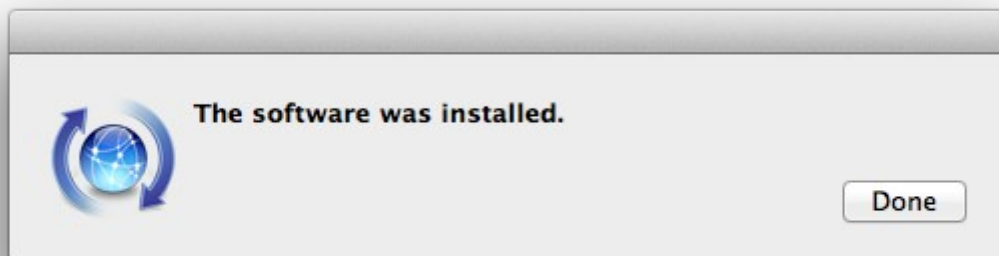
click **Install** button only, and will open other window. click **Agree** button



...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 **3.3.2**. Will install Oracle Java 1.8.

Please, visit:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133251.html>

...clic on:

**Agree and proceed**

...check:

**Accept License Agreement**

...and download the file called:

**jdk-8u144-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 packages 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 open332 DEFAULT CHARACTER SET 'utf8';
```

Now we create a user with all permission on this open332 database. User password must be of 8 digits minimum:

(One line only with a space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open332.* TO 'hola'@'localhost'
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

...and leave MariaDB:

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

- \* open332 ..... is the data-base name
- \* hola ..... is the name of the user for this data-base
- \* 1a2B3c4D ..... 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/red5332
```

...then make the folder:

```
mkdir /Users/you-user/red5332
```

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



Download Apache-OpenMeetings file to the installation folder:

```
cd /Users/you-user/red5332
```

```
wget http://apache.miloslavbrada.cz/openmeetings/3.3.2/bin/apache-openmeetings-3.3.2.zip
```

```
unzip apache-openmeetings-3.3.2.zip
```

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

```
mv apache-openmeetings-3.3.2.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/5.1.42/mysql-connector-java-5.1.42.jar
```

...and copy it to his place:

(Only one line with a space between both)

```
cp /Users/you-user/mysql-connector-java-5.1.42.jar  
/Users/you-user/red5332/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/red5332/webapps/openmeetings/WEB-INF/classes/META-  
INF/mysql_persistence.xml
```

**Modify line 72:**

```
, Url=jdbc:mysql://localhost:3326/openmeetings_3_3?
```

...to

, Url=jdbc:mysql://localhost:3326/open332?

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

If you have choose any other name for the 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/red5332/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 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
```

```
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/red5332
```

....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:**

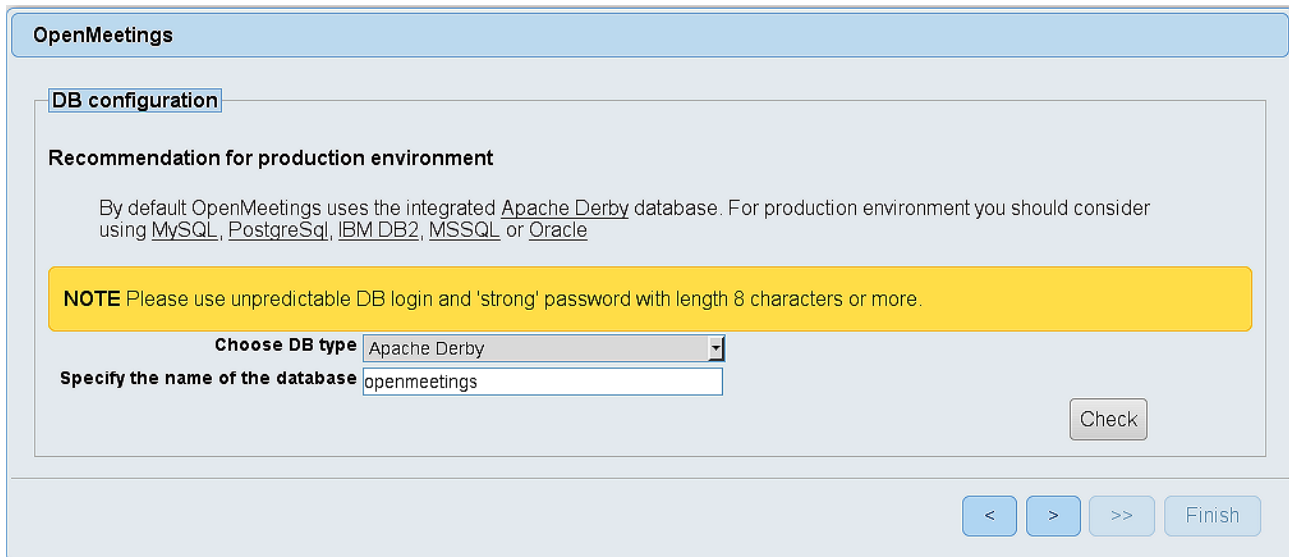
[Mailing lists](#)

**Commercial-Support:**

[Commercial-Support](#)

<
>
>>
Finish

...press 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

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

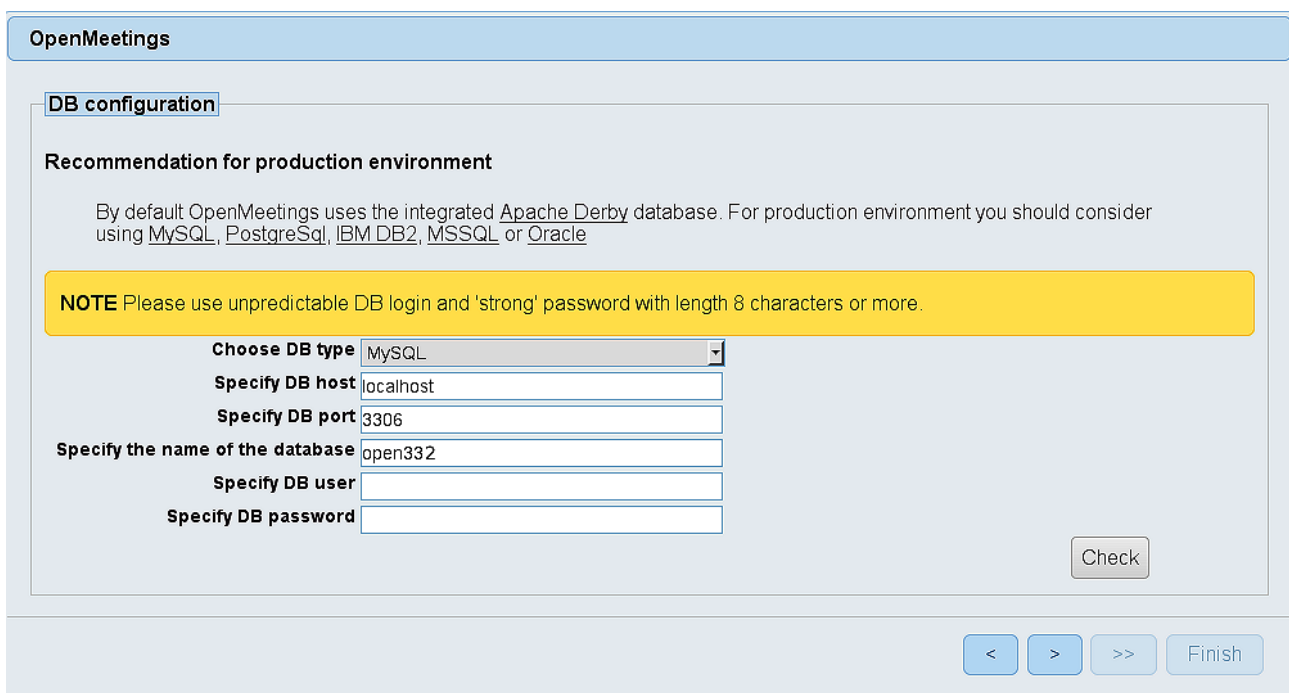
**Choose DB type** Apache Derby

**Specify the name of the database** openmeetings

Check

< > >> Finish

...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** MySQL

**Specify DB host** localhost

**Specify DB port** 3306

**Specify the name of the database** open332

**Specify DB user**

**Specify DB password**

Check

< > >> Finish


...and will show the database configuration we made in step 12.

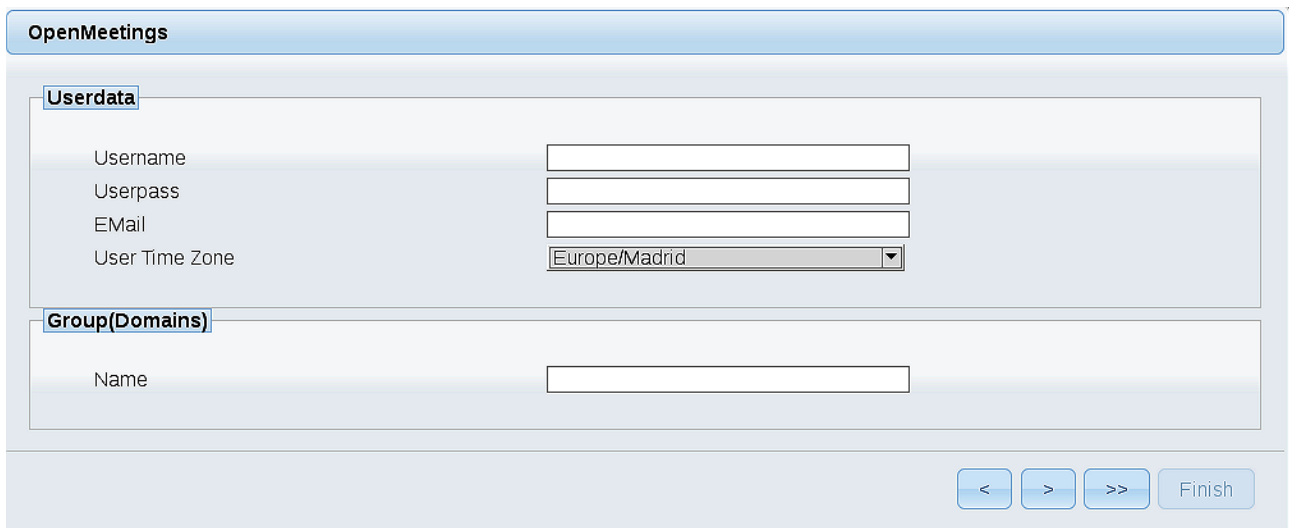
If you`ve choose any other different name for this, will show equally.

Now we must introduce the user name we did for our data base, at the step 10, and his password:

**Specify DB user** = hola

**Specify DB password** = 1a2B3c4D

Please, press  button, and will go to:



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

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

**Mail-Refer (system\_email\_addr)** == [john@gmail.com](mailto:john@gmail.com)

**SMTP-Server (smtp\_server)** == [smtp.gmail.com](mailto:smtp.gmail.com)

**SMTP-Server Port (default SmtP-Server Port is 25) (smtp\_port)** == [587](#)

**SMTP-Username (email\_username)** == [john@gmail.com](mailto:john@gmail.com)

**SMTP-Userpass (email\_userpass)** == [password of john@gmail.com](#)

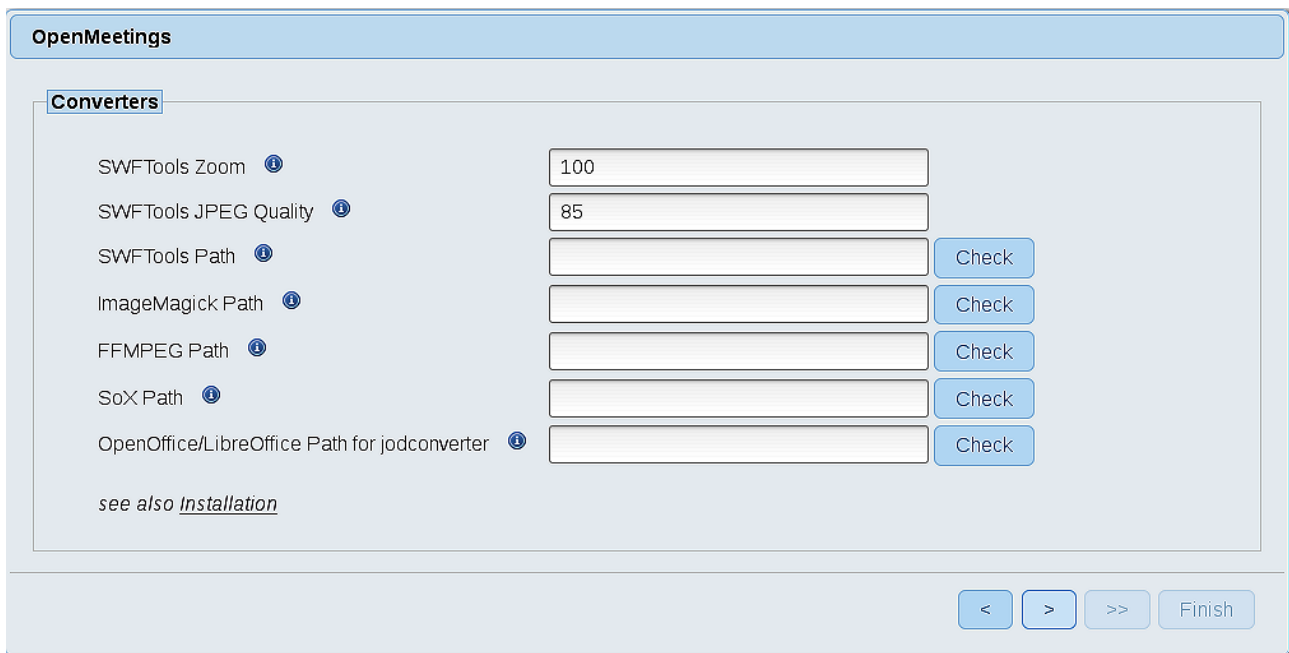
**Enable TLS in Mail Server Auth** == [Yes](#)

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

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

...the rest we can leave as is.

Now press the button  and a new page will appear:



**OpenMeetings**

**Converters**

SWFTools Zoom ⓘ

SWFTools JPEG Quality ⓘ

SWFTools Path ⓘ

ImageMagick Path ⓘ

FFMPEG Path ⓘ

SoX Path ⓘ

OpenOffice/LibreOffice Path for jodconverter ⓘ

see also [Installation](#)

< > >> Finish

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

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


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

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

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

**OpenOffice/LibreOffice 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 press 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:

**OpenMeetings**

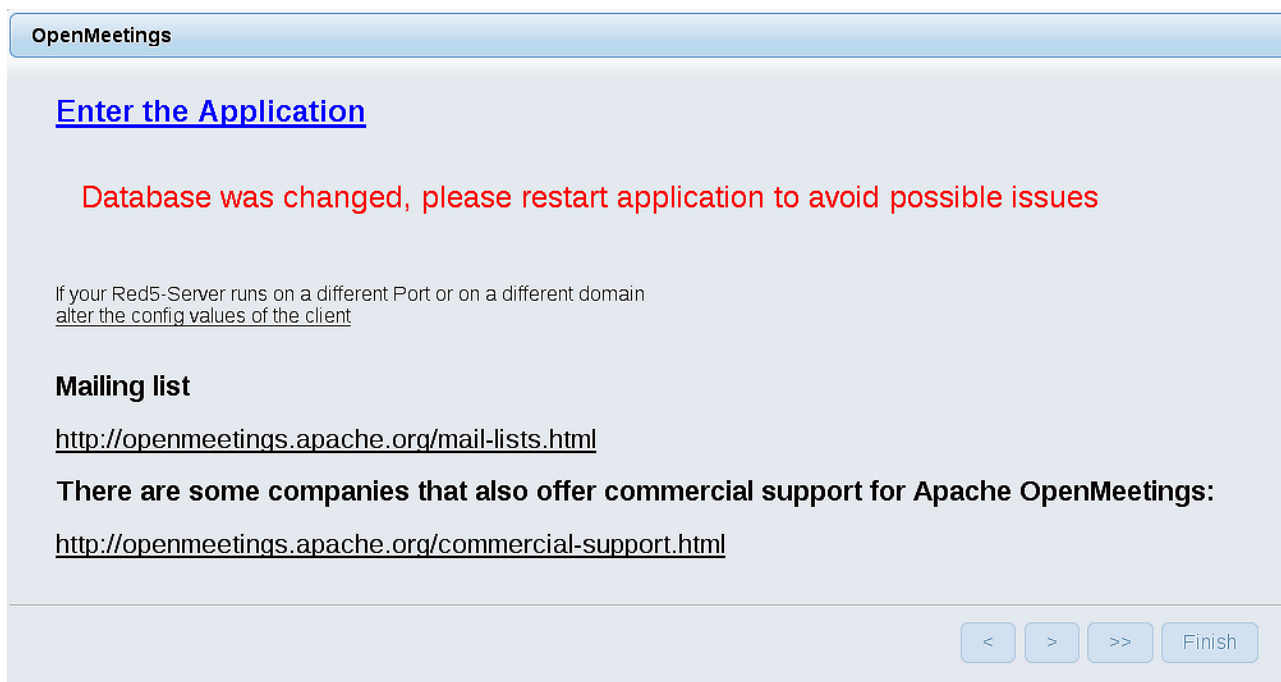
Please click "Finish" button to start installation!

Press **Finish** button ...wait a seconds until 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 to 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 screenshot shows a login form titled "Login". It contains the following fields and options:

- Username or mail address:
- Password:
- Remember login
- [Forgotten your password?](#)
- [Network testing](#)

At the bottom, 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, press **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**

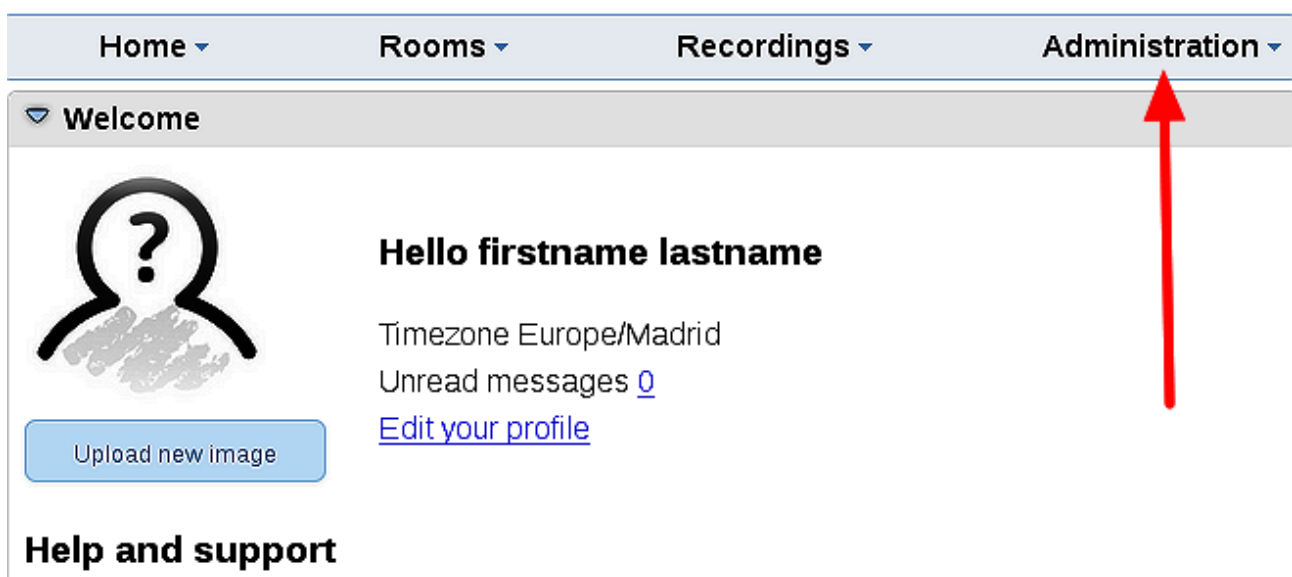
...in order that it could access to OpenMeetings from other machines, in Lan or Internet.

15)

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

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

**Administration → Configuration**



...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

1 → (points to row 18 in table)

2 → (points to Value field in configuration)

3 → (points to Configuration window title)

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