

# Installation of Apache OpenMeetings 3.1.5 on macOS Sierra

It is tested with positive result. We will use the Apache's binary version OpenMeetings 3.1.5 stable, that is to say will suppress his compilation. It is done step by step.

30-1-2017

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:

	The "xcode-select" command requires the command line developer tools. Would you like to			
	install the tools not		ou like to	
	choose motan to continu	e. Choose Get Xcode to i eveloper tools from the A	in the bare	
	Get Xcode	Not Now	Install	

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

APPLE INC.	
MAC SDK AN	ID XCODE AGREEMENT
SOFTWARE ( TERMS OF T AGREEMENT	D THIS MAC SDK AND XCODE AGREEMENT ("LICENSE") CAREFULLY BEFORE USING THE DEVELOPER DEFINED BELOW). BY USING THE DEVELOPER SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE HIS LICENSE. IF YOU ARE ACCESSING THE DEVELOPER SOFTWARE ELECTRONICALLY, SIGNIFY YOUR TO BE BOUND BY THE TERMS OF THIS LICENSE BY CLICKING THE "AGREE" BUTTON. IF YOU DO NOT HE TERMS OF THIS LICENSE, DO NOT USE THE DEVELOPER SOFTWARE AND CLICK "DISAGREE".
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...and will download and install the software

aining: Less than a n	ninute		
			Stop
	aining: Less than a r	aining: Less than a minute	aining: Less than a minute

...telling when it finished

10	The software was installed.	
		Done
		Done

...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 <u>https://raw.githubusercontent.com/Homebrew/install/master/install</u>)"

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 3.1.5. 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-8u121-macosx-x64.dmg

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

# ----- 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  $\geq 10-7$ ) (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

...clic on the <u>install\_flash\_player\_osx.dmg</u> 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 wich 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 whish:

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 open315 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 open315.\* TO 'hola'@'localhost' IDENTIFIED BY '123456' WITH GRANT OPTION;

...and leave MariaDB:

MariaDB [(none)]> quit

\* open315 ..... 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/red5315

...then make the folder:

mkdir /Users/you-user/red5315

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

Download Apache-OpenMeetings file to the installation folder:

cd /Users/you-user/red5315

wget http://apache.miloslavbrada.cz/openmeetings/3.1.5/bin/apache-openmeetings-3.1.5.zip unzip apache-openmeetings-3.1.5.zip

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

mv apache-openmeetings-3.1.5.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**/red5315/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**/red5315/webapps/openmeetings/WEB-INF/classes/META-INF/mysql\_persistence.xml

Modify line 71:

, Url=jdbc:mysql://localhost:3306/openmeetings\_3\_1?

...to

, Url=jdbc:mysql://localhost:3306/open315?

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

## Modify line 76:

, Username=root

...to

, Username=hola

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

## Modify line 77:

, 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.

clic 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**/red5315/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-mac

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

nano /Users/you-user/red5-mac

...modify the line:

export RED5\_HOME=/Users/you-user/red5315

....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-mac /opt

...concede execution permission:

chmod +x /opt/red5-mac

...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-mac 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
<ul> <li>Install GhostScript on the server, you can get more information on <u>http://pages.cs.wisc.edu/~ghost/</u> 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).</li> <li>Install SWFTools on the server, you can get more information on <u>http://www.swftools.org/</u> regarding installation. Some of the Linux distributions already have it in there package manager see <u>http://packages.debian.org/unstable/utils/swftools</u>), the recommended version of SWFTools is 0.9 as prior version have a bug that does lead to wrong object dimensions in the Whiteboard</li> </ul>
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	n environment
By default OpenMeetings use using <u>MySQL</u> , <u>PostgreSql</u> , I <u>B</u>	s the integrated <u>Apache Derby</u> database. For production environment you should consider M DB2, <u>MSSQL</u> or <u>Oracle</u>
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:

OpenMeetings		
-		
DB configuration		
Recommendation for production	environment	
By default OpenMeetings uses using <u>MySQL</u> , <u>PostgreSql</u> , <u>IBN</u>	; the integrated <u>Apache Derby</u> database. <u>1 DB2, MSSQL</u> or <u>Oracle</u>	For production environment you should consider
Choose DB type	MySQL	
Specify DB host	localhost	
Specify DB port	3306	
Specify the name of the database	open314	
Specify DB user	hola	
Specify DB password	123456	
		Check
		< > >> Finish

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

Please, press **button**, and will go to:

OpenMeetings		
Userdata		
Username		
Userpass		
EMail		
User Time Zone	Europe/Madrid	
Group(Domains)		
Name		
		< > >> Finish

Now we must introduce the followings data:

Username	=	a-namethis user will be administrator.
Userpass	=	password for the previous user.
Email	=	email-adress of the previous user.
User Time 2	Zone	e = country where is this server
Name	=	example-openmeetingsgroup 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)

Mail-Refer (system_email_addr)	==	john@gmail.com
SMTP-Server (smtp_server)	==	smtp.gmail.com
SMTP-Server Port (default Smtp-Server Port is 25) (smtp_port)	==	587
SMTP-Username (email_username)	==	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. If necessary, can modify it as you like it:

nfiguration		
Allow self-registering (allow_frontend_register)	Yes 🗸	]
Send Email to new registered Users (sendEmailAtRegister)	No 🗸	]
New Users need to verify their EMail (sendEmailWithVerficationCode)	No 🗸	]
Default Rooms of all types will be created	Yes 🗸	Ĵ
Mail-Referer (system_email_addr)	noreply@openmeetings.apache.org	
SMTP-Server (smtp_server)	localhost	
SMTP-Server Port(default Smtp-Server Port is 2 (smtp_port)	5) 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 🗸	)

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 <u>Installation</u>		
		< > >> 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				
Сгурт Туре				
Crypt Class	org.apache.openmeetings.util.crypt.SHA			
using:org.apache.openmeetings.utils.crvpt.MD	to PHP-MD5 function or BSD-Style encryption by <b>5CryptImplementation</b> for more information or to write your own Crypt-Style value later BUT previous created Users and Sessions might be not usable			
red5SIP Configuration				
Enable SIP	No			
Enable red5SIP integration				
SIP rooms prefix	400			
Prefix for phone number of conference rooms				
SIP extensions context	rooms			
Context of Asterisk extensions				
	< > >> Finish			

Now push the button **>** Will show this window:

OpenMeetings	
Please click "Finish" button to start installation!	
	< > >> Finish

Press 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 <u>Enter the Application</u>. First is need it to restart red5. Open a new terminal, and run this command (connected to Internet):

## /opt/red5-mac restart

OpenMeetings			
Enter the Application			
Database was changed, please restart application to avoid possible issues			
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			
< > >> Finish			

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:

Login		
Username or mail address Password		
Forgotten your password?	Remember login <u>Network testing</u>	
Not a member? 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 accese to OpenMeetings, will be:

http://localhost:5080/openmeetings

Remember to open in the server the two following ports:

# 1935 5080

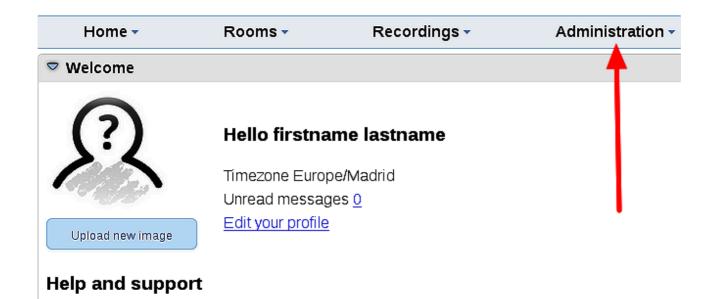
... in order that it could accede to OpenMeetings from other machines, in Lan or Internet.

15)

# ----- Configuration of OpenMeetings ------

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

Administration  $\rightarrow$  Configuration



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

50 🗾 🖬 📢	1 2 🏎 🖬	Search	📮 🌣 🖶 🕱
\$ ID	≎ Key	≎ Value	Configuration
4	allow.oauth.register	1	Key swftools_path
5	default_group_id	1	
6	smtp_server	localhost	Value
7	smtp_port	25	Last update
8	system_email_addr	noreply@openmeetings.apache.or g	Updated by Comment Path To SWF-Tools
9	email_username		
10	email_userpass		
	mail.smtp.starttls.ena ble	-	
12	mail.smtp.connection. timeout	30000	
13	mail.smtp.timeout	30000	
14	application.name	OpenMeetings	
15	default_lang_id	1	3 2
16	swftools_zoom	100	
17	swftools_jpegquality	85	
18	swftools_path		I
19	imagemagick_path		
20	sox_path		
21	ffmpeg_path		
22	office.path		

And this is all.

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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

