

## Installation of Apache OpenMeetings 4.0.10 on macOS Mojave 10.14.6

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.10 stable, that is to say will suppress his compilation. It is done step by step.

14-12-2019

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 re<br>command line developer tools. V<br>install the tools now? | •           |
|----|--|-------------|
|    | Choose Install to continue. Choose Get X<br>and the command line developer tools fr        |             |
|    | Get Xcode Not N  | low Install |

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

|  | Line Tools License Agreement  |
|--|---|
|  | ID XCODE AGREEMENT  |
| SOFTWARE (<br>TERMS OF T<br>AGREEMENT                                | D THIS MAC SDK AND XCODE AGREEMENT ("LICENSE") CAREFULLY BEFORE USING THE DEVELOPER<br>DEFINED BELOW). BY USING THE DEVELOPER SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE<br>HIS LICENSE. IF YOU ARE ACCESSING THE DEVELOPER SOFTWARE ELECTRONICALLY, SIGNIFY YOUR<br>TO BE BOUND BY THE TERMS OF THIS LICENSE BY CLICKING THE "AGREE " BUTTON. IF YOU DO NOT<br>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

| 10 | Downloading software               |          |
|----|------------------------------------|----------|
|    | Time remaining: Less than a minute |          |
|    |                                    | Stop     |
|    |                                    | <u> </u> |

...telling when it finished

| The software was installed. |  |      |
|-----------------------------|--|------|
|                             |  | 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 https://raw.githubusercontent.com/Homebrew/install/master/install)"

brew doctor

...and update:

brew update

brew upgrade

3)

### ----- Installation of needed 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 needed to work OpenMeetings 4.0.10. Will install Oracle Java 1.8.

Please change user by your real Mac user name:

### cd /Users/user

...downlod the java file:

(Only one line without space between both)

wget https://github.com/frekele/oracle-java/releases/download/8u212-b10/jdk-8u212-macosx-x64.dmg

...go to your home folder, where is the downloaded file, and clic on it:

### jdk-8u212-macosx-x64.dmg

...and following 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 4.1.7

Download full installation

Do clic on the unloaded file: Apache\_OpenOffice\_4.1.7\_MacOS\_x86-64\_install.... and will open this window:



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

6)

## ----- Installation of ImageMagick, Sox 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

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 cam. Download and install it:

<u>http://fpdownload.macromedia.com/pub/flashplayer/latest/help/install\_flash\_player\_osx.dmg</u> ...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

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

(Only one line with space between both)

brew install ffmpeg --with-tools --with-fdk-aac --with-freetype --with-fontconfig --with-libass --with-libvorbis --with-libvpx --with-opus --with-x265

FFmpeg is installed in: /usr/local/bin

The recording we'll make on OpenMeetings should be mp4 format.

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)

----- Building a database 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 open4010 DEFAULT CHARACTER SET 'utf8';

...now we create a user with all permission on this open4010 database. User password must be of 8 digits minimum:

(One line only with a space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open4010.\* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;

...and leave MariaDB:

MariaDB [(none)]> quit

\* open4010 ..... 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/red54010

... then make the folder:

mkdir /Users/you-user/red54010

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

Download Apache-OpenMeetings file to the installation folder:

cd /Users/you-user/red54010

wget http://archive.apache.org/dist/openmeetings/4.0.10/bin/apache-openmeetings-4.0.10.tar.gz

tar xzvf apache-openmeetings-4.0.10.tar.gz

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

mv apache-openmeetings-4.0.10.tar.gz /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 https://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.48/mysql-connector-java-5.1.48.jar

...and copy it to his place:

(Only one line with a space between both)

cp /Users/**you-user**/mysql-connector-java-5.1.48.jar /Users/**you-user**/red54010/webapps/openmeetings/WEB-INF/lib

12)

### ----- 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/red54010

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

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

sudo su ...acces as superuser

mkdir /opt ...and build the directory /opt

...we copy the script red5-mac2 to /opt:

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

...concede execution permission:

chmod +x /opt/red5-mac2

...and exit as superuser:

exit

13)

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

Begin with the interface of OpenMeetings.

Run MariaDB, "if is not":

mysql.server start

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

/opt/red5-mac2 start

...wait about 40 seconds in order red5 can run completly. Then, go with the browser to:

http://localhost:5080/openmeetings

...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.ed</u><br/>instructions for installation can be found there, however on most linux systems you can ge<br/>managers (apt-get it).</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 | <b>MySQL</b> | (MariaDB)       | ): |
|--------|--------------|-----------------|----|
| •p.o.j |              | (1.1.1.1.1.2.2) | ,. |

| OpenMeetings   |
|--|
| DB configuration   |
| Recommendation for production environment  |
| By default OpenMeetings uses the integrated <u>Apache Derby</u> database. For production environment you should consider using <u>MySQL</u> , <u>PostgreSql</u> , <u>IBM DB2</u> , <u>MSSQL</u> or <u>Oracle</u> |
| 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:

# Pag 11

| 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.   |
| Specify DB host localhost         Specify DB port 3306         Specify the name of the database openmeetings         Specify DB user   |
| Specify DB password Check  |
| < > >> Finish  |

Now we must introduce the database name, user name and his password we did at the step 10:

| Specify the name of the database | = | open4010 |
|----------------------------------|---|----------|
| Specify DB user                  | = | hola     |
| Specify DB password              | = | 1a2B3c4D |

... if you choose any different data, here is where type it.

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

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

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-namethis user will be administrator.    |
|--|---|---|
| Userpass   | = | password for the previous user.           |
| Email  | = | email-adress of the previous user.        |
| <b>User Time Zone</b> = 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:

| OpenMeetings  |                                 |  |
|---|---------------------------------|--|
| Configuration   |                                 |  |
| Allow self-registering  |                                 |  |
| Send Email to new registered Users  |                                 |  |
| New Users need to verify their EMail  |                                 |  |
| Default DB objects of all types will be created<br>(including Rooms, OAuth2 servers etc.) |                                 |  |
| Mail-Referer  | noreply@openmeetings.apache.org |  |
| SMTP-Server   | localhost                       |  |
| SMTP-Server Port(default Smtp-Server Port is 25)  | 25                              |  |
| SMTP-Username   |                                 |  |
| SMTP-Userpass   |                                 |  |
| Enable TLS in Mail Server Auth  |                                 |  |
| Set inviter's email address as ReplyTo in email invitations                               |                                 |  |
| Default Language  | inglés v                        |  |
|   |                                 |  |
|   |                                 |  |
|   | < > >> Finish                   |  |

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

| Mail-Refer   | == | john@gmail.com                    |
|--|----|-----------------------------------|
| SMTP-Server  |    | smtp.gmail.com                    |
| SMTP-Server Port (default<br>Smtp-Server Port is 25) | == | 587                               |
| SMTP-Username  | == | john@gmail.com                    |
| SMTP-Userpass  | == | password of john@gmail.com        |
| Enable TLS in Mail Server Auth                       |    | turn green the button to activate |
|  |    |                                   |

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

| Default Language | == | select your | language |
|------------------|----|-------------|----------|
|                  |    |             |          |

...the rest you can change it as you like.

Now press the button > and a new page will appear:

| OpenMeetings                                   |     |               |
|--|-----|---------------|
| Converters                                     |     |               |
| Document conversion DPI                        | 150 |               |
| Document conversion JPEG Quality 🛽 🖲           | 90  |               |
| ImageMagick Path 🔞                             |     | Check         |
| FFMPEG Path 🕚                                  |     | Check         |
| SoX Path 🕚                                     |     | Check         |
| OpenOffice/LibreOffice Path for jodconverter 0 |     | Check         |
| see also <u>Installation</u>                   |     |               |
|  |     | < > >> Finish |

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

| 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 🕚          | org.apache.openmeetings.util.crypt.SCr |               |
| red5SIP Configuration  |  |               |
| Enable SIP             |  |               |
| SIP rooms prefix       | 400                                    |               |
| SIP extensions context | rooms                                  |               |
|                        |  |               |
|                        |  | < > >> 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-mac2 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<br>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, press **Sign in** button and...

## ...Congratulations!

The next time that you like acces 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.

14)

```
----- 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

| Home 🗸           | Rooms 🗸                                | Recordings 🗸 | Administration - |
|------------------|--|--------------|------------------|
| ▽ Welcome        |  |              | <b>•</b>         |
| (?)              | Hello firstname                        | lastname     |                  |
|                  | Timezone Europe/M<br>Unread messages ( |              |                  |
| Upload new image | Edit your profile                      | -            | •                |
| Help and support |  |              |                  |

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

| Home 👻 | Rooms -                          | Recordings - Administra   | tion -                              |   |
|--------|----------------------------------|---|-------------------------------------|---|
| 50 🗾 🖬 | ≪ 12 ↦ ⊨                         | Search  | 📙 🌣 🖶 💥                             |   |
| ≎ ID   | ≎ Key                            | ≎ Value   | Configuration                       |   |
|        | crypt.class.name                 | org.apache.openmeetings.util.crypt.S<br>CryptImplementation                     | Type string                         | • |
| 2      | allow.frontend.register          | true  | Key path.ffmpeg                     |   |
| 3      | allow.soap.register              | true  | Value                               |   |
| 1      | allow.oauth.register             | true  | Last update Oct 17, 2017 5:54:57 PM |   |
| 5      | default.group.id                 | 1   | Updated by toro                     |   |
| 5      | mail.smtp.server                 | localhost   | Comment Path To FFMPEG              |   |
| 7      | mail.smtp.port                   | 25  | Comment Paul to FFMPEG              |   |
| 3      | mail.smtp.system.email           | noreply@openmeetings.apache.org   |                                     |   |
| Э      | mail.smtp.user                   |   |                                     |   |
| LO     | mail.smtp.pass                   |   |                                     |   |
| 11     | mail.smtp.starttls.enabl<br>e    | false   |                                     |   |
| 12     | mail.smtp.connection.ti<br>meout | 30000   |                                     |   |
| 13     | mail.smtp.timeout                | 30000   | -0                                  |   |
| 14     | application.name                 | OpenMeetings  |                                     |   |
| 15     | default.lang.id                  | 8   | 3                                   |   |
| L6     | document.dpi                     | 150   |                                     |   |
| 17     | document.quality                 | 90  |                                     |   |
| 18     | path.imagemagick                 |   |                                     |   |
| .9     | path.sox                         |   | -                                   |   |
| 20     | path.ffmpeg                      | -   | <u> </u>                            |   |
| 21     | path.office                      |   |                                     |   |
| 22     | dashboard.rss.feed1              | http://mail-archives.apache.org<br>/mod_mbox/openmeetings-<br>user/?format=atom |                                     |   |
| 23     | dashboard.rss.feed2              | http://mail-archives.apache.org<br>/mod_mbox/openmeetings-<br>dev/?format=atom  |                                     |   |
| 24     | send.email.at.register           | false   |                                     |   |
| 24     | send.email.with.verficat         | false   |                                     |   |

If you have some doubt or question, please raise it in the Apache OpenMeetings forums:

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http://openmeetings.apache.org/mailing-lists.html



Also you can download if you like, a wallpaper of OpenMeetings for different devices such as:

PC, Mac, Smartphone, iPhone and Tablets. Here is the link to downoload:

## OpenMeetings Wallpaper Download

A dvd live iso with OpenMeetings 4.0.10 on Ubuntu 18.04 lts is at your disposal.

Can find it here:

Live iso download

Thank you.

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).