



## **Installation of Apache OpenMeetings 4.0.2 on Centos 7**

This tutorial is made based on fresh installations of

**CentOS-7-x86\_64-Minimal-1708.iso**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.2 stable, that is to say will suppress his compilation. It is done step by step.

2-3-2018

Please, be connected to Internet in all the process to run any server.

Starting...

**1)**

At first place we must modify Selinux level security for the installation:

```
yum install -y nano wget
```

```
sudo nano /etc/selinux/config
```

...modify:

```
SELINUX=enforcing
```

...to

```
SELINUX=permissive
```

2)

----- Update Operative System -----

Update operative system:

```
yum update -y
```

...and reboot, for kernel changes and the new Selinux configuration take effect:

```
reboot
```

3)

----- ADD Repos -----

```
yum install -y wget
```

**EPEL:**

```
wget http://epel.mirror.nucleus.be/7/x86\_64/Packages/e/epel-release-7-11.noarch.rpm
```

```
sudo rpm -Uvh epel-release-7*.rpm
```

**## Nux ##**

(Only one line without space between both)

```
rpm -Uvh http://li.nux.ro/download/nux/dextop/el7/x86\_64/nux-dextop-release-0-5.el7.nux.noarch.rpm
```

```
## Adobe repo 64-bit x86_64 ## For Flash player.
```

```
rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-x86_64-1.0-1.noarch.rpm
```

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-adobe-linux
```

```
yum update -y
```

4)

#### ----- Installation of Oracle Java 1.8 -----

Java 1.8 is necessary for OpenMeetings 4.0.2. We install Oracle Java 1.8.

```
cd /opt
```

Download the file:

(All in one line only. 1<sup>a</sup> and 2<sup>a</sup> without space between them. A space to the 3<sup>a</sup>. Together 3<sup>a</sup> and 4<sup>a</sup>)

```
wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F%2Fwww.oracle.com%2F; oraclelicense=accept-securebackup-cookie" http://download.oracle.com/otn-pub/java/jdk/8u161-b12/2f38c3b165be4555a1fa6e98c45e0808/jdk-8u161-linux-x64.rpm
```

...and install it:

```
rpm -ivh jdk-8u161-linux-x64.rpm
```

Maybe you have installed various versions of Java. We select the just installed Oracle Java:

```
update-alternatives --config java
```

And to see if the selected version is active:

```
java -version
```

5)

#### ----- Installation of LibreOffice -----

OpenMeetings will need LibreOffice to convert to pdf the uploaded office files. Install it.

Maybe it is installed, but for iso server:

```
yum -y install libreoffice libreoffice-headless
```

6)

## ----- Installation of necessary packages and libraries -----

Will install packages and libraries we'll need later:

(All in only one line. A space between 1<sup>a</sup> and 2<sup>a</sup>. Together 2<sup>a</sup> and 3<sup>a</sup>)

```
yum install -y libjpeg libjpeg-devel ghostscript freetype freetype-devel unzip gcc gcc-c++ ncurses
ncurses-devel make zlib zlib-devel libtool bison bison-devel openssl-devel bzip2 bzip2-devel file-
roller git autoconf automake pkgconfig tomcat-native nmap vlc
```

7)

## ----- Installation ImageMagick and Sox -----

**ImageMagick**, work the images files jpg, png, gif, etc. We install it and some libraries:

```
yum install -y ImageMagick giflib giflib-devel giflib-utils
```

**Sox**, work the sound. Will compile it:

```
cd /opt
```

```
wget http://ftp.icm.edu.pl/packages/sox/14.4.2/sox-14.4.2.tar.gz
```

```
tar xzvf sox-14.4.2.tar.gz
```

```
cd /opt/sox-14.4.2
```

```
./configure
```

```
make && make install
```

```
cd /opt
```

8)

## ----- Installation of Adobe Flash Player -----

OpenMeetings even need Adobe Flash Player for cam.

```
yum install -y flash-plugin
```

9)

## ----- Compilation of FFmpeg -----

FFmpeg work with video. Will install a paquets, libraries and vlc to play the recordings.

```
yum install -y glibc alsa-lib-devel faac faac-devel faad2 faad2-devel gsm gsm-devel imlib2 imlib2-  
devel lame-devel vorbis-tools theora-tools libvpx-devel vlc autoconf automake cmake freetype-  
devel gcc gcc-c++ git libtool make mercurial nasm pkgconfig zlib-devel curl
```

This ffmpeg compilation is based on this url, updated file versions 2-3-2018:

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

I made a script to compile and install ffmpeg on Centos. It is tested and is ok.  
The result of any recording we do in OpenMeetings, will be in mp4 format.  
During the x265 compilation, will look like stop for a minutes in a text that say: **43%**,  
but not always. Don't worry, everything is going right. Be patient.

When is finished, will appear a text:

**FFMPEG Compilation is Finished!**

So, we download the script:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg-centos2.sh
```

...concede execution permission to it:

```
chmod +x ffmpeg-centos2.sh
```

...and run it (be connected to Internet). The compilation will spend about 30 minutes:

```
./ffmpeg-centos2.sh
```

All the compiled files will be installed in: /usr/local/bin

When finish, please continue to **step 10**).

**10)**

----- Installation MariaDB data server -----

MariaDB is the database server.

We install it:

```
yum install -y mariadb-server
```

...and run mariadb:

```
systemctl start mariadb.service
```

Give a password to mariadb root . Please, modify **new-password** by your own.

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

Make a database for OpenMeetings. User password must be of 8 digits minimum:

```
mysql -u root -p
```

...will ask for the root password you does just now:

```
MariaDB [(none)]> CREATE DATABASE open402 DEFAULT CHARACTER SET 'utf8';
```

Now we create a user with all permission on this open402 database.

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open402.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

```
* open402 ..... name of the database  
* hola ..... user for that database  
* 1a2B3c4D ..... password of that user
```

You can change the data...but remember it! Later we'll need it. Now we leave MariaDB:

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

11)

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

We'll install OpenMeetings in /opt/red5402. All the following information will be based on this directory.

Call to our folder of installation red5402

Make the folder:

```
mkdir /opt/red5402
```

```
cd /opt/red5402
```

...and download the OpenMeetings file:

```
wget http://apache.miloslavbrada.cz/openmeetings/4.0.2/bin/apache-openmeetings-4.0.2.zip
```

```
unzip apache-openmeetings-4.0.2.zip
```

...save the unloaded file to /opt:

```
mv apache-openmeetings-4.0.2.zip /opt
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.45/mysql-connector-java-5.1.45.jar
```

...and copy it to where must be:

```
cp /opt/mysql-connector-java-5.1.45.jar /opt/red5402/webapps/openmeetings/WEB-INF/lib
```

12)

----- Script to launch red5-OpenMeetings -----

We'll download the script to run red5-OpenMeetings:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-2
```

...copy it to where must be:

```
cp red5-2 /etc/init.d/
```

...concede execution permission:

```
chmod +x /etc/init.d/red5-2
```

If you made the installation in any other different path to /opt/red5402, please edit the script and modify the line:

```
RED5_HOME=/opt/red5402
```

...to

```
RED5_HOME=/your-path-installation
```

13)

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

Restart MariaDB:

```
systemctl restart mariadb.service
```

...and run red5-OpenMeetings. Please, be connected to Internet:

```
/etc/init.d/red5-2 start
```

...wait until the text “**CleanupJob.cleanRoomFiles**”, 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).

**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):

The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' tab selected. Under the heading 'Recommendation for production environment', there is a note: '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 is a yellow box with a 'NOTE' stating: 'Please use unpredictable DB login and 'strong' password with length 8 characters or more.' The 'Choose DB type' dropdown menu is set to 'Apache Derby'. The 'Specify the name of the database' text box contains 'openmeetings'. A 'Check' button is visible on the right. At the bottom right, there are navigation buttons: '<', '>', '>>', and 'Finish'.

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


The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' tab selected. The 'Choose DB type' dropdown menu is now set to 'MySQL'. The 'Specify DB host' text box contains 'localhost', 'Specify DB port' contains '3306', 'Specify the name of the database' contains 'openmeetings', 'Specify DB user' is empty, and 'Specify DB password' is empty. A 'Check' button is visible on the right. At the bottom right, there are navigation buttons: '<', '>', '>>', and 'Finish'.

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

Specify the name of the database = open402

Specify DB user = hola

Specify DB password = 1a2B3c4D

Please, press  button and will go to:

OpenMeetings

Userdata

Username	<input style="width: 60%;" type="text"/>
Userpass	<input style="width: 60%;" type="text"/>
E-Mail	<input style="width: 60%;" type="text"/>
User Time Zone	<input style="width: 60%;" type="text" value="Europe/Madrid"/>

Group(Domains)

Name	<input style="width: 60%;" type="text"/>
------	--

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** = a-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	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>
Mail-Referer	<input type="text" value="noreply@openmeetings.apache.org"/>
SMTP-Server	<input type="text" value="localhost"/>
SMTP-Server Port(default SmtP-Server Port is 25)	<input type="text" value="25"/>
SMTP-Username	<input type="text"/>
SMTP-Userpass	<input type="password"/>
Enable TLS in Mail Server Auth	<input type="checkbox"/>
Set inviter's email address as ReplyTo in email invitations	<input checked="" type="checkbox"/>
Default Language	<input type="text" value="inglés"/>

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](mailto:john@gmail.com)

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

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

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

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

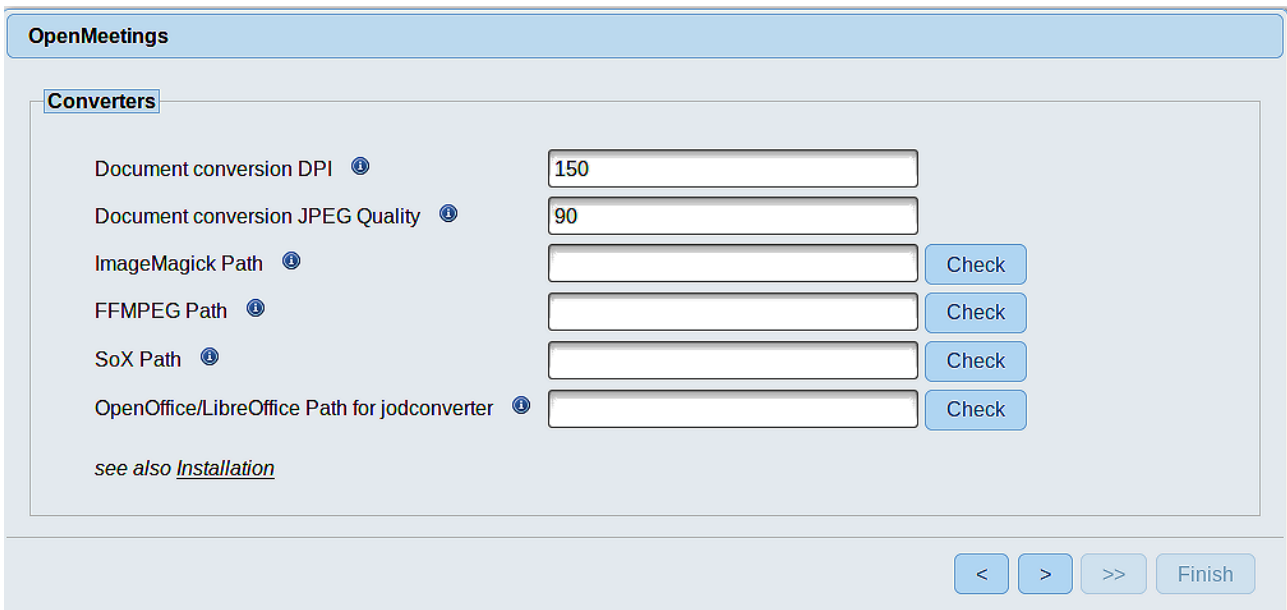
**Enable TLS in Mail Server Auth** == [...turn green the button to activate](#)

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

**Default Language** == [...select your language](#)

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

Now press the button  and a new page will appear:



**OpenMeetings**

**Converters**

Document conversion DPI ⓘ

Document conversion JPEG Quality ⓘ

ImageMagick Path ⓘ

FFMPEG Path ⓘ

SoX Path ⓘ

OpenOffice/LibreOffice Path for jodconverter ⓘ

see also [Installation](#)

< > >> Finish

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


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

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

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

**OpenOffice/LibreOffice Path for jodconverter** == [/usr/lib64/libreoffice](#)

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 ⓘ

**red5SIP Configuration**

Enable SIP ⓘ

SIP rooms prefix ⓘ

SIP extensions context ⓘ

< > >> Finish

Now push the button  Will show this window:

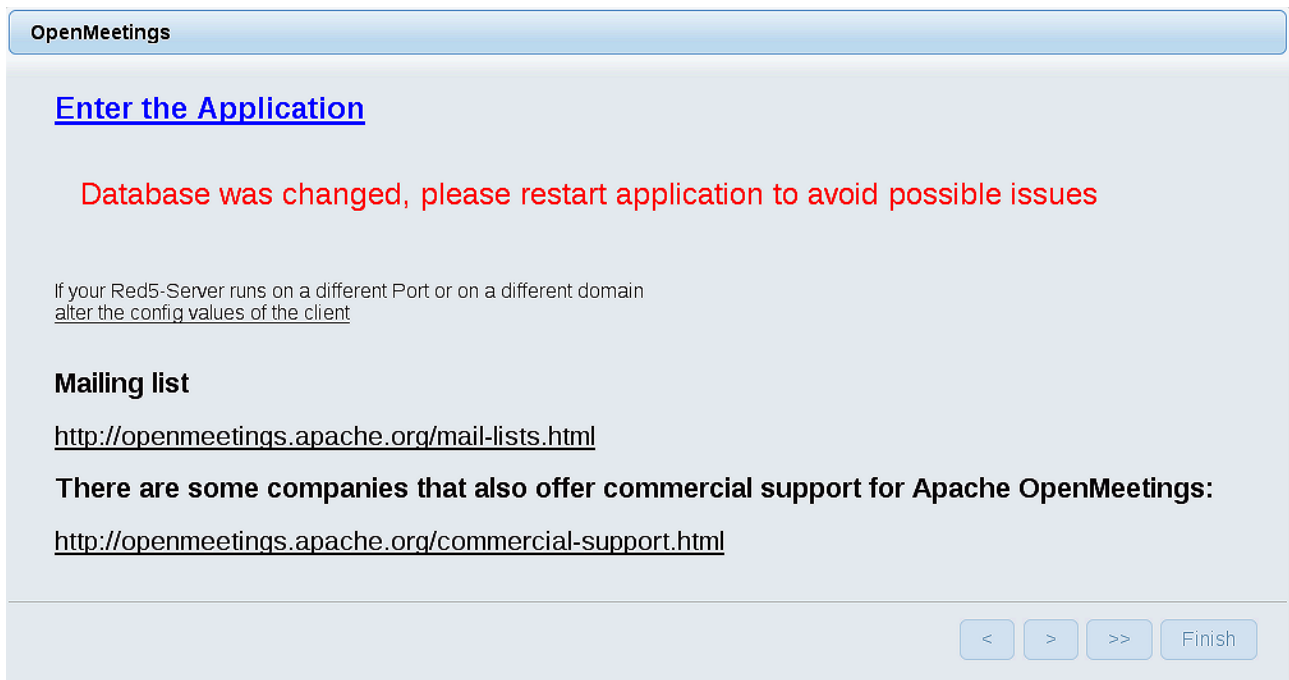
**OpenMeetings**

Please click "Finish" button to start installation!

< > >> Finish

Clic **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 server. Be connected to Internet:

[/etc/init.d/red5-2 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 elements: a text input field for "Username or mail address", a text input field for "Password", a checkbox labeled "Remember login", a link for "Forgotten your password?", and a link for "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, push **Sign in** button, and...

...Congratulations!

The next time that you like to accede OpenMeetings, would be:

<http://localhost:5080/openmeetings>

Remember to open in the server, the two following ports:

1935 5080

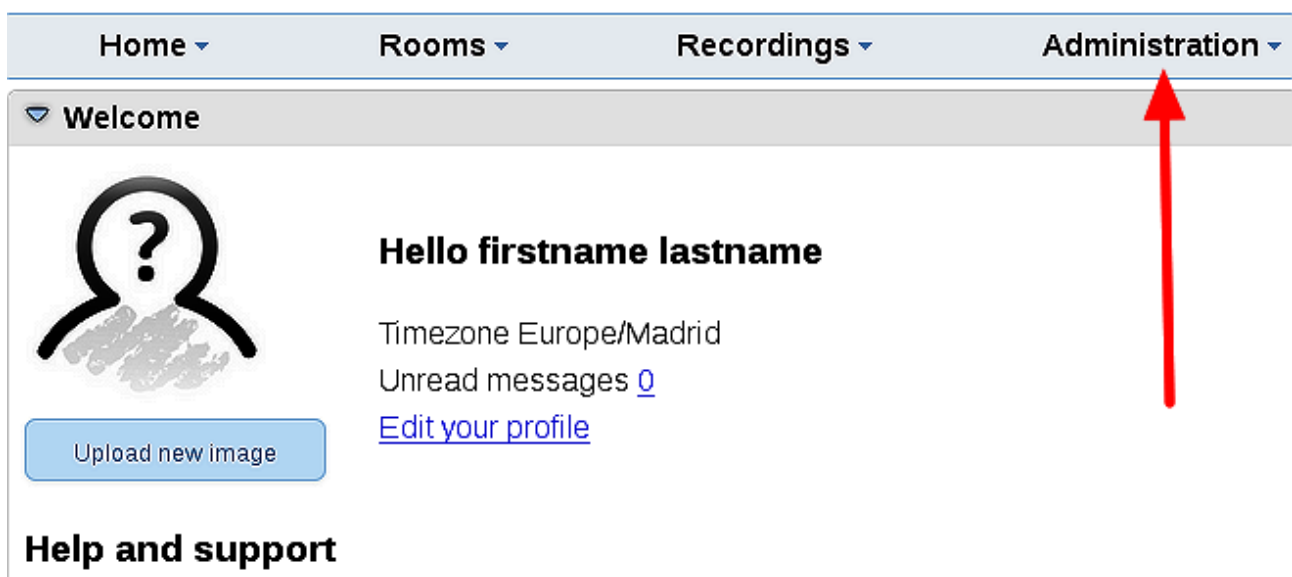
...in order that it could accede to OpenMeetings from other machines in Lan or Internet.

14)

----- OpenMeetings's configuration -----

Once you acced 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:

Home ▾ Rooms ▾ Recordings ▾ Administration ▾

50 | Search

ID	Key	Value
1	crypt.class.name	org.apache.openmeetings.util.crypt.SCryptImplementation
2	allow.frontend.register	true
3	allow.soap.register	true
4	allow.oauth.register	true
5	default.group.id	1
6	mail.smtp.server	localhost
7	mail.smtp.port	25
8	mail.smtp.system.email	noreply@openmeetings.apache.org
9	mail.smtp.user	
10	mail.smtp.pass	
11	mail.smtp.starttls.enable	false
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default.lang.id	8
16	document.dpi	150
17	document.quality	90
18	path.imagemagick	
19	path.sox	
20	path.ffmpeg	
21	path.office	
22	dashboard.rss.feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user/?format=atom
23	dashboard.rss.feed2	http://mail-archives.apache.org/mod_mbox/openmeetings-dev/?format=atom
24	send.email.at.register	false
25	send.email.with.verification	false

**Configuration**

Type: string

Key: path.ffmpeg

Value:

Last update: Oct 17, 2017 5:54:57 PM

Updated by: toro

Comment: Path To FFMPEG

1 2 3

Chat

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



