



## **Installation of Apache OpenMeetings 4.0.9 on CentOS 8**

This tutorial is made based on fresh installations of

**CentOS-8-x86\_64-1905-dvd1.iso**

My sincere thanks to Maxim Solodovnik for his help, without which i could not have finished this tutorial satisfactorily.

It is made step by step.

22-11-2019

Starting...

1)

We access to terminal as root::

`su`

....will ask for root password.

Install nano editor:

```
yum install -y nano
```

Add our user system to sudoers, so can use sudo:

```
nano /etc/sudoers
```

...copy and paste replacing **user** by your real user system name:

```
user ALL=(ALL:ALL) ALL
```

...press in the keyboard **Ctrl+x**, will ask to save, press **Y**, and press **Enter** to exit nano editor.

Now will change the selinux configuration, enforcing to permissive:

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

...modify:

```
SELINUX=enforcing
```

...to

```
SELINUX=permissive
```

...press in the keyboard **Ctrl+x**, will ask to save, press **Y**, and press **Enter** to exit nano editor.

Update the system:

```
yum update -y
```

...and reboot the machine to get effect the changes. After reboot please continue at step 2:

```
reboot
```

2)

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

```
sudo yum install -y wget
```

**EPEL:**

```
sudo yum install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm
```

**## RPMFusion ##**

`sudo yum install https://download1.rpmfusion.org/free/el/rpmfusion-free-release-8.noarch.rpm`

**## Adobe repo 64-bit x86\_64 ## For Flash Player**

(Only one line without space between both)

`sudo dnf install -y http://linuxdownload.adobe.com/adobe-release/adobe-release-x86_64-1.0-1.noarch.rpm`

3)

**----- Installation of OpenJava -----**

Java 11 is necessary for OpenMeetings 4.0.9. So we install OpenJava 11:

`sudo yum install -y java-11-openjdk-devel`

Maybe you have installed various versions of Java. Please select the just installed OpenJava 11:

`sudo update-alternatives --config java`

And to see if the selected version is active:

`java -version`

4)

**----- Installation of Flash Player -----**

Flash Player is needed for micro and cam. We install it:

`sudo dnf install -y libcurl flash-plugin alsa-plugins-pulseaudio`

5)

**----- Installation of LibreOffice -----**

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

```
cd /opt
```

(Only one line without space between both))

```
sudo wget ftp://mirror.7he.at/pub/tdf/libreoffice/stable/6.3.3/rpm/x86_64/LibreOffice_6.3.3_Linux_x86-64_rpm.tar.gz
```

```
sudo tar -xvf LibreOffice_6.3.3*
```

```
cd LibreOffice_6.3.3.2*
```

```
sudo yum localinstall RPMS/*.rpm
```

```
cd /opt
```

6)

**----- Installation of Ghostscript, necessary packages and libraries -----**

Will install packages and libraries we'll need later:

(Only one line with space between each one of them)

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

We access to terminal as root:

```
su
```

...will ask for root password.

With a script we should compile Ghostscript 9.27, free of security hole:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ghostscript.sh
```

```
chmod +x ghostscript.sh
```

...and run it:

```
./ghostscript.sh
```

...when be finished will announce it: **GhostScript compilation is Finished!**

```
rm -Rf /opt/ghostscript-9.27
```

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
```

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

```
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)

----- **Compilation of FFmpeg** -----

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

(Only one line with space between each one of them)

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

This ffmpeg compilation is based on this url:

<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.

The compilation will spend 20 minutes about.

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_centos8.sh
```

...concede execution permission to it:

```
chmod +x ffmpeg_centos8.sh
```

...and run it. The compilation will spend about 20 minutes:

```
./ffmpeg_centos8.sh
```

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

9)

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

Exit as root:

```
exit
```

MariaDB is the database server. We install it:

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

...and run mariadb:

```
sudo systemctl start mariadb.service
```

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

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

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

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

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

```
MariaDB [(none)]> CREATE DATABASE open409 DEFAULT CHARACTER SET 'utf8';
```

Now we create an user with all permission on this open409 database.

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open409.* TO 'hola'@'localhost'
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

```
* open409 ..... 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 exit MariaDB:

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

10)

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

We'll install OpenMeetings in /opt/open409. All the following information will be based on this directory:

We create the mentioned folder:

```
sudo mkdir /opt/red5409
```

```
cd /opt/red5409
```

...download the OpenMeetings file:

```
sudo wget http://archive.apache.org/dist/openmeetings/4.0.9/bin/apache-openmeetings-4.0.9.tar.gz
```

```
sudo tar xzvf apache-openmeetings-4.0.9.tar.gz
```

...and save the file to /opt::

```
sudo mv apache-openmeetings-4.0.9.tar.gz /opt
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
sudo wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.48/mysql-connector-java-5.1.48.jar
```

...and copy it where must be to:

```
sudo cp /opt/mysql-connector-java-5.1.48.jar /opt/red5409/webapps/openmeetings/WEB-INF/lib
```

11)

----- Script to launch Tomcat-OpenMeetings -----

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

```
cd /opt
```

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

...copy it to where must be:

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

...concede execution permission:

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

If you made the installation in any other path to /opt/open409, please edit the script and modify the line:

```
RED5_HOME==/opt/open409
```

...to

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



12)

## ----- Run Red5-OpenMeetings -----

Restart MariaDB:

```
sudo systemctl restart mariadb.service
```

...and run red5-OpenMeetings:

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

...wait a minimum of 40 seconds in order tomcat run completely. Then, go with your browser to:

<http://localhost:5080/openmeetings/>

...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 H2, but we employ MySQL (MariaDB):

**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

By default OpenMeetings uses the integrated H2 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

Specify the name of the database

...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

Specify DB host

Specify DB port

Specify the name of the database

Specify DB user


Specify DB password

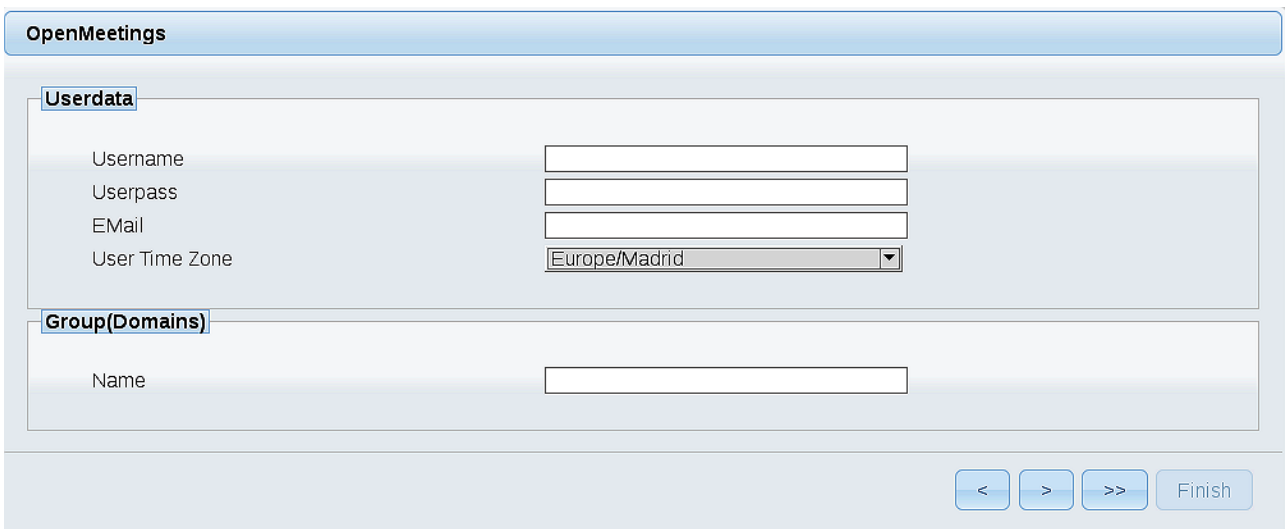
Here we must introduce the database name, user name and his password we did at the step 8:

Specify the name of the database = open409

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** = 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

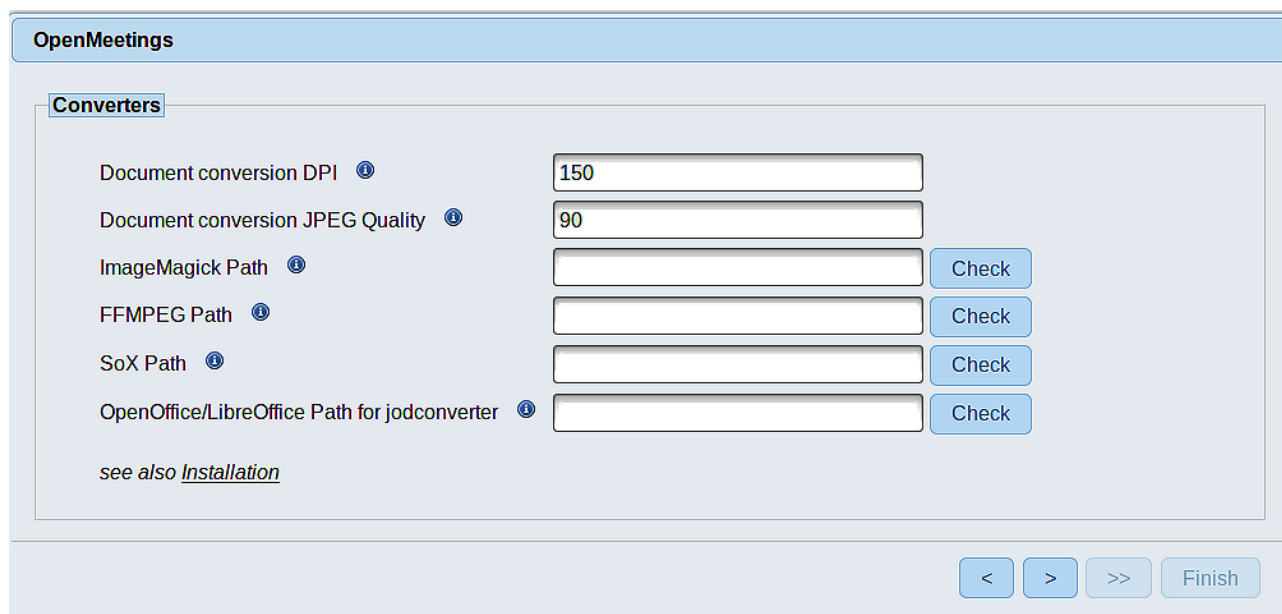
Allow self-registering	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>
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="text"/>
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)

<b>Mail-Refer</b>	==	<a href="mailto:john@gmail.com">john@gmail.com</a>
<b>SMTP-Server</b>	==	<a href="mailto:smtp.gmail.com">smtp.gmail.com</a>
<b>SMTP-Server Port (default SmtP-Server Port is 25)</b>	==	<a href="#">587</a>
<b>SMTP-Username</b>	==	<a href="mailto:john@gmail.com">john@gmail.com</a>
<b>SMTP-Userpass</b>	==	<a href="#">password of john@gmail.com</a>
<b>Enable TLS in Mail Server Auth</b>	==	<a href="#">...turn green the button to activate</a>
<b>Default Language</b>	==	<a href="#">...select your language</a>

...the rest we can leave as is. If is 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** == [/opt/libreoffice6.3](#)

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:

Now push the button  Will show this window:

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 tomcat server. Be connected to Internet:

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

Remember login

[Forgotten your password?](#) [Network testing](#)

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**

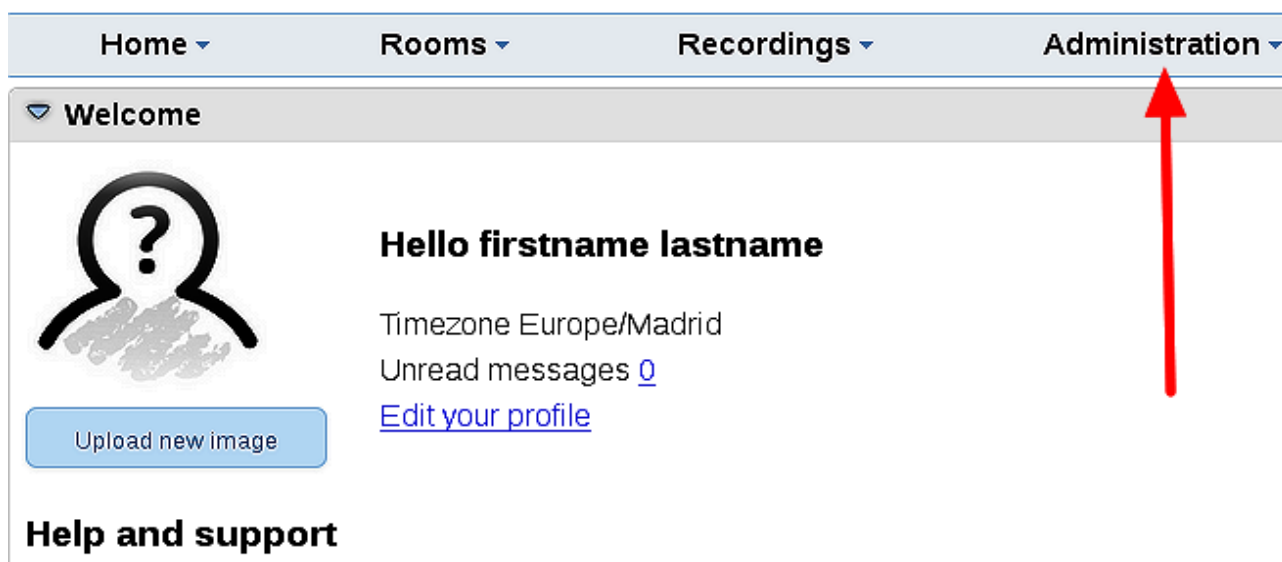
...in order that it could accede to OpenMeetings from other machines in Lan or Internet.

13)

----- **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

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

<http://openmeetings.apache.org/mailling-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 download:

[OpenMeetings Wallpaper Download](#)

A dvd live iso with OpenMeetings 4.0.9 on Ubuntu 18.04 lts it is at your disposal.

Can find it here:

[Live iso download](#)

Thank you

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).