



## Installation of Apache OpenMeetings 5.0.0 M1 on Arch Linux

This tutorial is based on a fresh installations of

**arch-anywhere-2.2.9-x86\_64.iso**

Arch Anywhere, it is a pure Arch Linux, with the only difference that the installation it is graphical.

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.

26-3-2019

Starting...

1)

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

Update the system:

`sudo pacman -Syu`

2)

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

Java it is necessary for OpenMeetings 5.0.0-M1. We'll install Open Java 11.

```
sudo pacman -S jdk11-openjdk
```

Do OpenJava 11 as default (maybe is another java versions installed):

```
sudo archlinux-java set java-11-openjdk
```

3)

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

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

We install it:

```
sudo pacman -S libreoffice
```

...press **Enter** to any question.

4)

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

Will install packages and libraries that we'll need later:

(Only one line with space between both)

```
sudo pacman -S libjpeg ghostscript unzip gcc neurses make zlib libtool bison bzip2 file-roller  
autoconf automake pkgconfig tomcat-native nmap curl freetype2 nano base-devel fakeroot jshon  
expac git wget
```

...press **Enter** to any question.

5)

----- **Installation ImageMagick and Sox** -----

**ImageMagick**, will work with images files jpg, png, gif, etc. We install it:

```
sudo pacman -S imagemagick
```

We modify ImageMagick, so OpenMeetings can upload office files to whiteboard:

```
sudo nano /etc/ImageMagick-7/policy.xml
```

...and comment the following line, near to bottom file:

```
<policy domain="coder" rights="none" pattern="{PS,PS2,PS3,EPS,PDF,XPS}" />
```

...to

```
<!-- <policy domain="coder" rights="none" pattern="{PS,PS2,PS3,EPS,PDF,XPS}" /> -->
```

Press in the keyboard **Ctrl+x**, will ask to save, press **Y**, and press **Enter** to exit nano editor.  
**This last must be repeated every time you update ImageMagick.**

**Sox**, work the sound. Install it:

```
sudo pacman -S sox
```

6)

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

FFmpeg work with video. Will install a libraries, paquets, and vlc to play the recordings that we'll make in OpenMeetings:

(Only one line with space between both)

```
sudo pacman -S glibc faac faad2 gsm imlib2 vorbis-tools autoconf automake cmake gcc git libtool  
make mercurial nasm pkgconfig yasm vlc qt4
```

The ffmpeg compilation it is based on this url:

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

I made a script that will download, compile and install ffmpeg. It is tested and works ok.  
 The result of any recordings we do in OpenMeetings, will be in mp4 format.

When the compilation be finished, will appear a text announce it:

**FFMPEG Compilation is Finished!**

So, download the script:

```
cd /opt
```

(Only one line without space between both)

```
sudo wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_archlinux2.sh
```

...concede execution permission to it:

```
sudo chmod +x ffmpeg_archlinux2.sh
```

...and run it:

```
sudo ./ffmpeg_archlinux2.sh
```

The compilation will spend about 30 minutes.

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

When be finished please go to next step.

7)

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

MariaDB is the data server. We install it:

```
sudo pacman -S mariadb
```

Initialize data directories:

```
sudo mysql_install_db --user=mysql --basedir=/usr --datadir=/var/lib/mysql
```

...and run MariaDB:

```
sudo systemctl start mysqld
```

Give a password to root MariaDB. Please replace **new-password** by your own and remember it:

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

Access to MariaDB:

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

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

Make a database called open500, for OpenMeetings. User password must be of 8 digits minimum:

```
MariaDB [(none)]> CREATE DATABASE open500 DEFAULT CHARACTER SET 'utf8';
```

Now we create a user with all permission on this open500 database:

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open500.* TO 'hola'@'localhost'
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

```
* open500 ..... name of the database
* hola ..... user for that database
* 1a2B3c4D .....password of this user
```

You can change the data, but...remember it! Later we'll need it.

We leave MariaDB:

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

8)

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

We'll install OpenMeetings in /opt/open500. All the following information will be based on this directory.

Make the folder:

```
sudo mkdir /opt/open500
```

```
cd /opt/open500
```

...and download the OpenMeetings file:

(Only one line without space between both)

```
sudo wget https://dist.apache.org/repos/dist/release/openmeetings/5.0.0-M1/bin/apache-
openmeetings-5.0.0-M1.zip
```

```
sudo unzip apache-openmeetings-5.0.0-M1.zip
```

...save the unloaded file to /opt:

```
sudo mv apache-openmeetings-5.0.0-M1.zip /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/8.0.15/mysql-connector-java-8.0.15.jar
```

...and copy it to where must be:

```
sudo cp /opt/mysql-connector-java-8.0.15.jar /opt/open500/webapps/openmeetings/WEB-INF/lib
```

9)

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

We make the folder /etc/init.d where put the Tomcat-OpenMeetings run script:

```
sudo mkdir /etc/init.d
```

Download the script to run tomcat-OpenMeetings:

```
cd /opt
```

```
sudo wget https://cwiki.apache.org/confluence/download/attachments/27838216/tomcat3
```

...copy it to where must be:

```
sudo cp tomcat3 /etc/init.d/
```

...concede execution permission:

```
sudo chmod +x /etc/init.d/tomcat3
```

If you would made the installation in any other different path to /opt/open500, please edit the script and modify the line:

CATALINA\_HOME==/opt/open500

...to

CATALINA\_HOME==/your-path-installation

10)

----- Run Tomcat-OpenMeetings -----

Restart MariaDB:

```
sudo systemctl restart mysqld
```

...and run tomcat-OpenMeetings:

```
sudo /etc/init.d/tomcat3 start
```

...wait around 40 seconds for running Tomcat completely. 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

- 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 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

Specify the name of the database

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

**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

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**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

Now we must introduce the database name, user name and his password we did at the step 7:

**Specify the name of the database** = open500

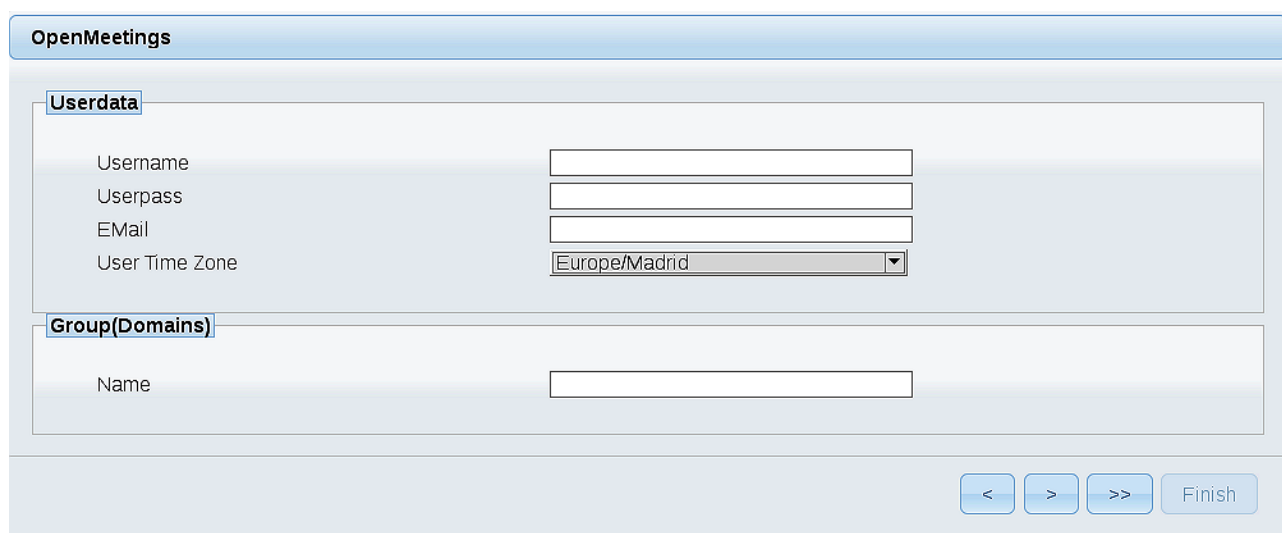
**Specify DB user** = hola

**Specify DB password** = 1a2B3c4D



If you choose different data please type it here.

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 this 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**

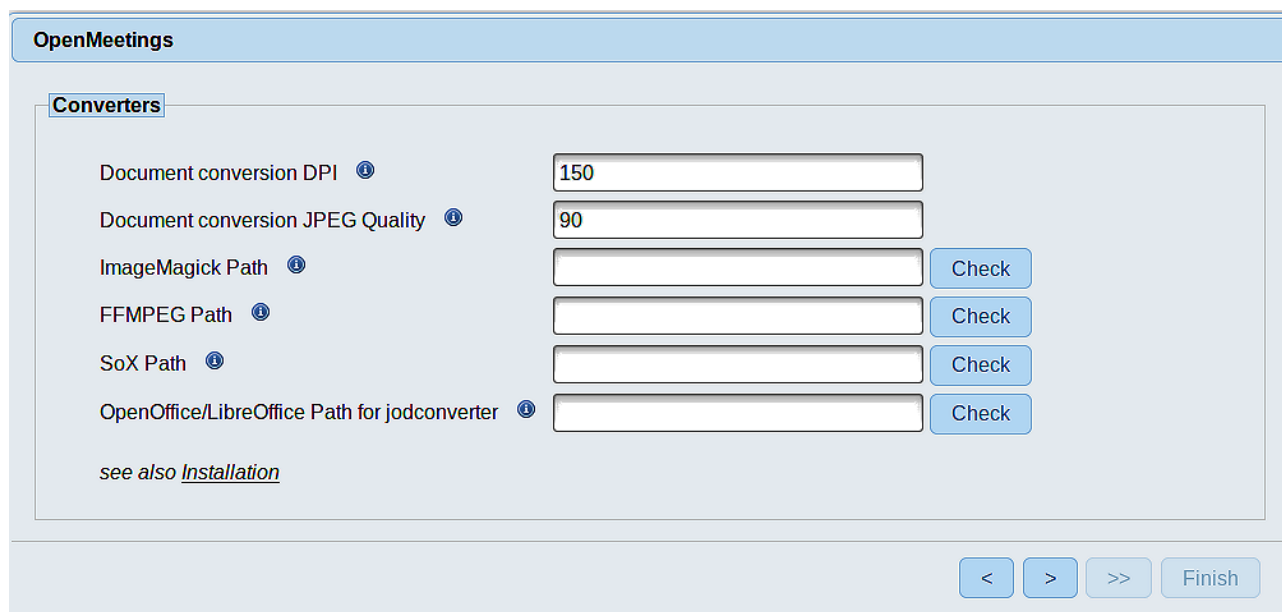
Allow self-registering	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>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

<b>Mail-Refer</b>	==	<a href="#">john@gmail.com</a>
<b>SMTP-Server</b>	==	<a href="#">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="#">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 you can change it as you like.

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](#)


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/bin](#)

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

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:

The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a light blue header. Below the header, there are two main sections:

- Crypt Type:** Contains a label 'Crypt Class' with an information icon, and a text input field containing the value 'org.apache.openmeetings.util.crypt.SCr'.
- red5SIP Configuration:** Contains three items:
  - 'Enable SIP' with a checked checkbox (red fill).
  - 'SIP rooms prefix' with a text input field containing '400'.
  - 'SIP extensions context' with a text input field containing 'rooms'.

At the bottom right of the window, there are four buttons: '<', '>', '>>', and 'Finish'.

Now, touch the button  Will show this window:

The screenshot shows the 'OpenMeetings' window after clicking the next button. The title bar is 'OpenMeetings'. The main content area contains the text 'Please click "Finish" button to start installation!' and a large empty text input field below it. At the bottom right, there are four buttons: '<', '>', '>>', and 'Finish'.

Press **Finish** button...wait a seconds until the tables are fill in our database.

When is concluded, this another page will appear. **Don't** clic on [Enter the Application](#). First is need it to restart tomcat server. Please, be connectd to Internet. Open a new terminal as root:

`sudo /etc/init.d/tomcat3 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>

Now you can click on [Enter the Application](#) and it will take you to the OpenMeetings entry. **But wait before entering OpenMeetings, we have to install Docker and Kurento-Media-Server,** something we will do in the next steps, so that you can have access to the camera, micro, recording and desktop sharing in the room.

Login

Username or mail address	<input style="width: 100%;" type="text"/>
Password	<input style="width: 100%;" type="password"/>
	<input type="checkbox"/> Remember login
<a href="#">Forgotten your password?</a>	<a href="#">Network testing</a>

11)

### ----- Installation of Docker -----

We'll install Docker as recipient for kurento-media-server.

su

pacman -S docker

Add your user system to docker group and so can run docker without be root.  
Replace **user** by your real system user name:

gpasswd -a **user** docker

su - \${USER}           ...to take effect the changes

su

...stop OpenMeetings and MariaDB:

/etc/init.d/tomcat3 stop

systemctl stop mysqld

...and reboot the machine. After this, follow in the step 12:

reboot

**12)**

### ----- Instalation of Kurento-Media-Server -----

After had rebooted the computer, we'll install Kurento-Media-Server need it for cam, mic-audio, recordings and share dektop.

First run docker:

sudo systemctl start docker.service

...and install kurento-media-server:

(Only one line, with space between 1 and 2, and without space between 2 and 3)

```
sudo docker run -d --name kms -p 8888:8888 --mount
type=bind,source=/opt/open500/webapps/openmeetings/data,target=/opt/open500/webapps/
openmeetings/data kurento/kurento-media-server
```

...if you does the OpenMeetings installation in a different path, then please replace the brown text.

To know the name and the number ID of our kurento:

```
sudo docker ps -a
```

...the name it is: kms. We need it to run kurento.

Run kurento-media-server:

```
sudo docker start kms
```

Run MariaDB for OpenMeetings:

```
sudo systemctl start mysqld
```

...and launch tomcat-OpenMeetings:

```
sudo /etc/init.d/tomcat3 start
```

 ...wait around 40 seconds to tomcat run completely.

Now you can access OpenMeetings with all the functions at your disposal.

Clic the link down and type the user name and his password to login:

<http://localhost:5080/openmeetings>

or

<https://localhost:5443/openmeetings>

Can connect to this server from Internet or LAN is necessary open these ports:

http = **5080 8888** ----- https = **5443 8888**

13)


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

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

**Administration → Configuration**

Home ▾ Rooms ▾ Recordings ▾ Administration ▾

Welcome



**Hello firstname lastname**

Timezone Europe/Madrid  
Unread messages [0](#)  
[Edit your profile](#)

[Upload new image](#)

**Help and support**



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

Home ▾ Rooms ▾ Recordings ▾ Administration ▾

50 [Navigation icons] [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



-----

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

<http://openmeetings.apache.org/mail-lists.html>



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

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

[Download](#)

Thank you.

Alvaro Bustos