Installation of Apache OpenMeetings 5.0.0 on Debian 10

The present tutorial is made based on a minimal fresh installations of

debian-live-10.0.0-amd64-mate.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.

Starting...

1)

First, we update and upgrade the OS:

sudo apt update

sudo apt upgrade

2)

------ Installation of Java ------

OpenMeetings 5.0.0 need Java 11 to work. So we install OpenJava 11:

```
sudo apt install openjdk-11-jdk openjdk-11-jdk-headless nano
```

Now, please, select OpenJava 11, if you have more than one java versions installed:

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

To see the active java version:

```
java -version
```

3)

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

LibreOffice is need it to convert to pdf the uploaded office files.

The ubuntu desktop iso have already LibreOffice installed.

But we install it specially for server iso:

```
sudo apt install libreoffice
```

4)

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

ImageMagick, will work the image files, png, jpg, gif, etc. Will install it and some more libraries and paquets:

```
sudo apt install -y imagemagick libjpeg62  zlib1g-dev
```

Sox, work the sound. We install it:

```
sudo apt install sox
```

5)

------ Installation of FFmpeg ------

FFmpeg will work the video. We install together to vlc for watch the videos:

sudo apt install ffmpeg vlc

6)

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

MariaDB is the data server. Will install it:

sudo apt install mariadb-server

Run MariaDB:

sudo /etc/init.d/mysql start

Now we give a root password to MariaDB. Please, replace new-password with your own:

sudo mysqladmin -u root password new-password

Make a database with his own user for OpenMeetings:

sudo mysql -u root -p

...will ask for the root password that you have just choosen, type it...

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

(Only one line with space between both)

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

* open500 .....is the database name.
* hola ……is the user name for this database.
* 1a2B3c4D ..is the password for this user.

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

...now we leave MariaDB:

MariaDB [(none)]> quit

7)

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

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

cd /opt

...download the tomcat-OpenMeetings file:

sudo wget https://archive.apache.org/dist/openmeetings/5.0.0/bin/apache-openmeetings-5.0.0.tar.gz

...uncompress it:

sudo tar xzvf apache-openmeetings-5.0.0.tar.gz

...and rename the obtained folder:

sudo mv apache-openmeetings-5.0.0 open500

We make some folders for the recordings we´ll make at the different OpenMeetings rooms:

sudo mkdir -p /opt/open500/webapps/openmeetings/data/streams/{1,2,3,4,5,6,7,8,9,10,11,12,13,14}

sudo mkdir -p /opt/open500/webapps/openmeetings/data/streams/hibernate

...restrict the access to these folders:

sudo chmod -R 750 /opt/open500/webapps/openmeetings/data/streams

...and we do to “nobody” user ownner of OpenMeetings installation folder:

sudo chown -R nobody:nogroup /opt/open500

Download and install the connector between OpenMeetings and MariaDB:

cd /opt

(Only one line without space between both)

sudo wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/8.0.20/mysql-connector-java-8.0.20.jar

...and copy it to where must be:

sudo cp /opt/mysql-connector-java-8.0.20.jar /opt/open500/webapps/openmeetings/WEB-INF/lib

8)

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

Please, download the tomcat run script:

cd /opt

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

...copy it to:

sudo cp tomcat3 /etc/init.d/

...and concede permission of execution:

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

9)

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

We´ll install Docker as recipient of Kurento Media Server. For that, we´ll create his repository:

sudo nano /etc/apt/sources.list.d/docker.list

...and copy-paste the following line:

deb [arch=amd64] https://download.docker.com/linux/debian buster stable

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

Install the public claves for this repository:

sudo wget https://download.docker.com/linux/debian/gpg -O- | sudo apt-key add

...update:

sudo apt update

...and install Docker:

sudo apt install -y docker-ce docker-ce-cli containerd.io

To test it works right, we´ll install “hello world”:

sudo docker run hello-world

...and appear this announce:

"Hello from Docker!
This message shows that your installation appears to be working correctly."
…….
…….

For a normal user, no root, can run Docker , we add it to docker group:

sudo adduser your-user docker

(change your-user by your real user system name)

10)

------ **Installation of Kurento-Media-Server** ------

We install Kurento Media Server, needed for cam, micro-audio, recording and share desktop.

First we run docker:

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)

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.
We need install also Coturn (Turn server), and configure it (after finish the present tutorial):

Download Installation SSL certificates and Coturn for OpenMeetings 5.0.0 on Debian 10

11)

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

Start MariaDB, if still it is not:

sudo /etc/init.d/mysql start

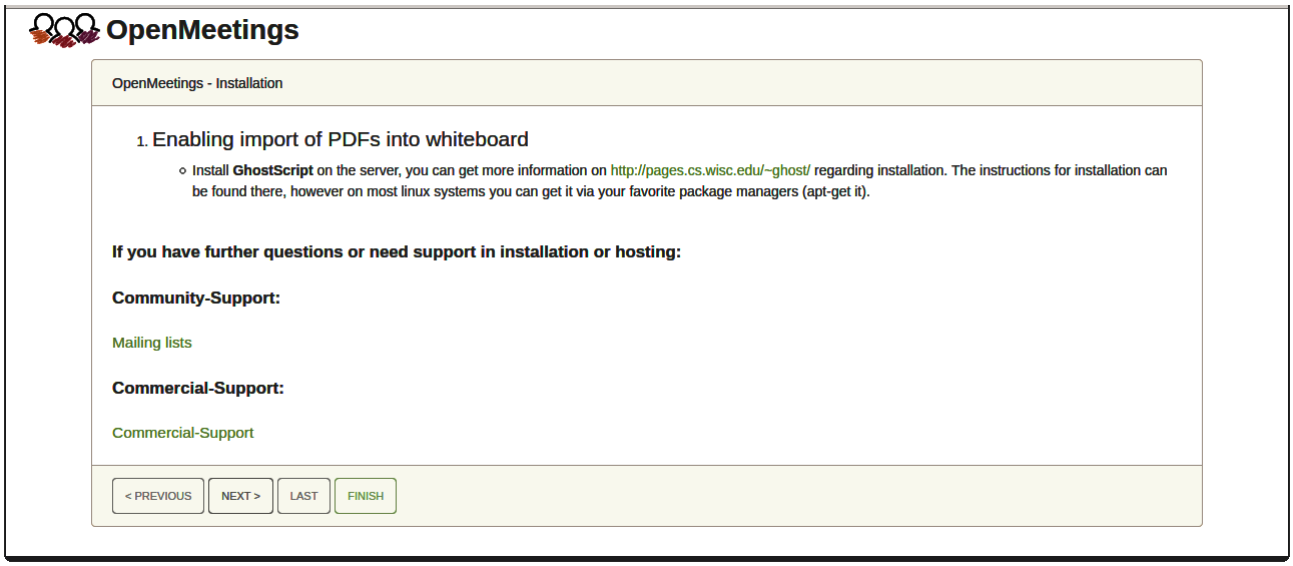
...and now start tomcat-OpenMeetings:

sudo /etc/init.d/tomcat3 start

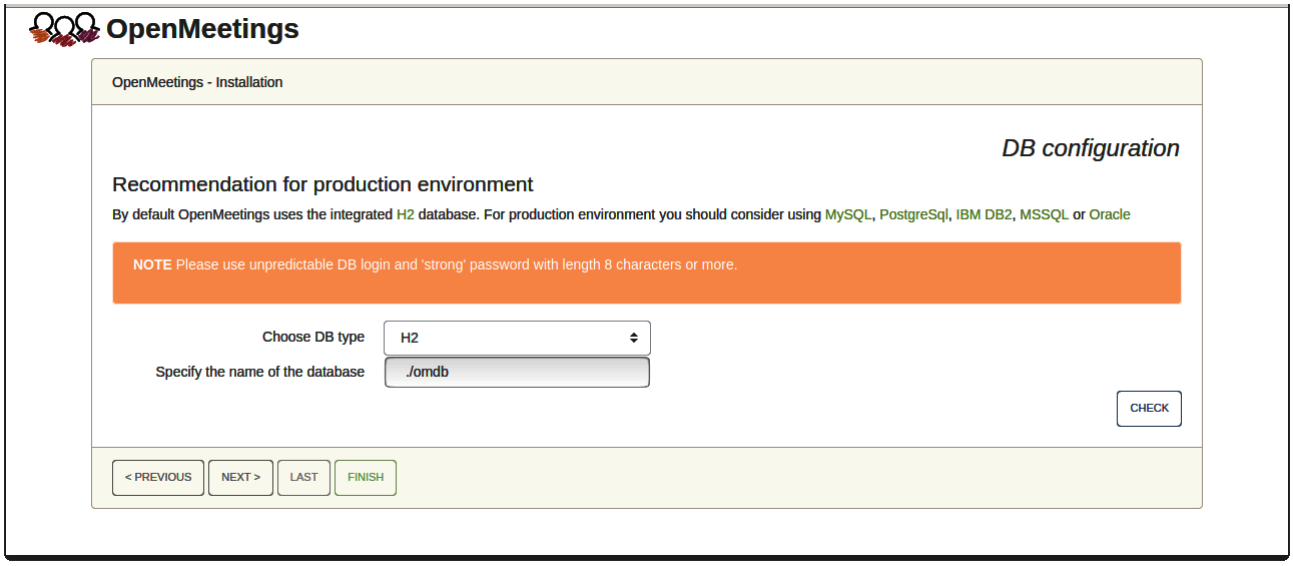
...wait 40 seconds at least, in order that tomcat runing completely. And after this, can go to:

https://localhost:5443/openmeetings

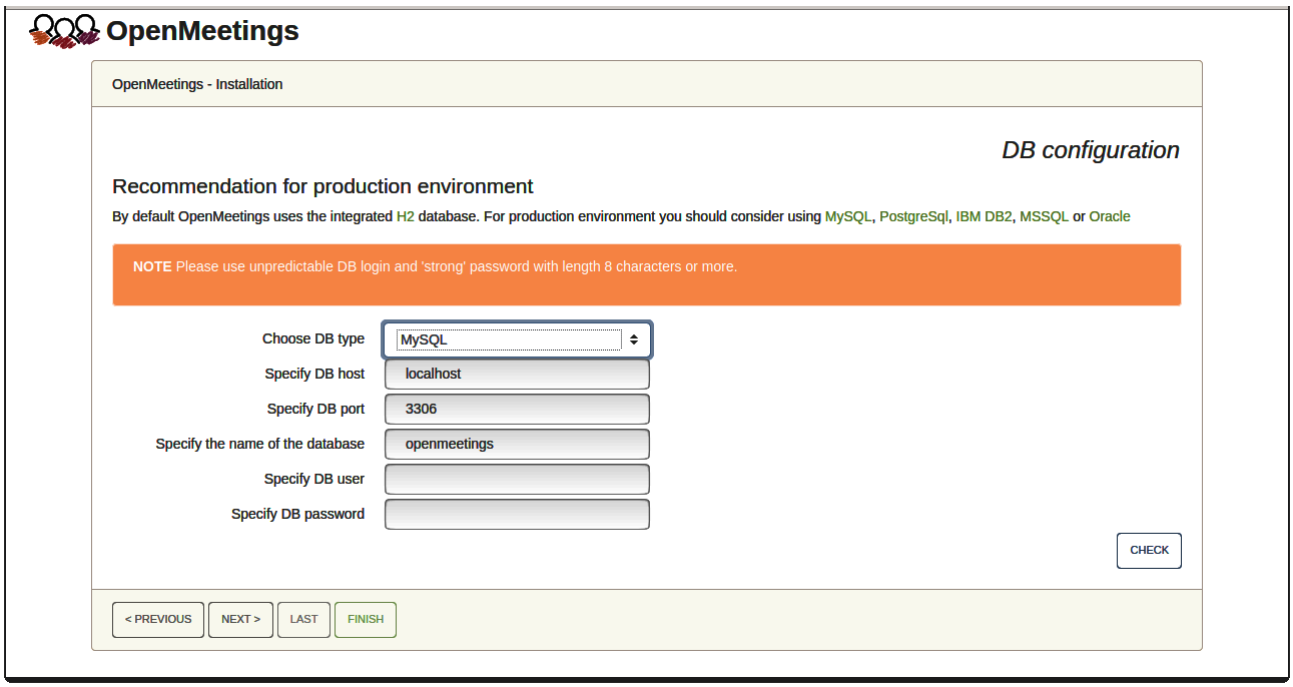
...there will appear a page similar to this one:



...press on "**Next >**" button (bottom), and will show the default database configuration with H2, but we employ MySQL (MariaDB),



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



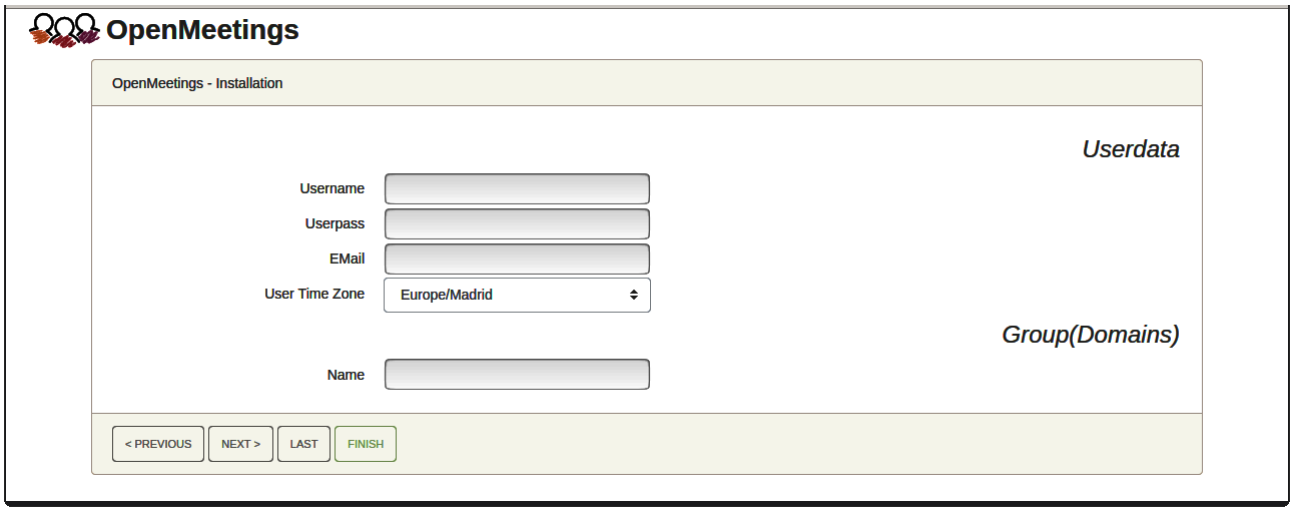
Now we must introduce the database name, user name and his password, we did at the step 6:

Specify the name of the database = open500

Specify DB user = hola

Specify DB password = 1a2B3c4D

...if you choose any other data, please type it here. Please push "**Next >**" 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 = password ...for the previous user.

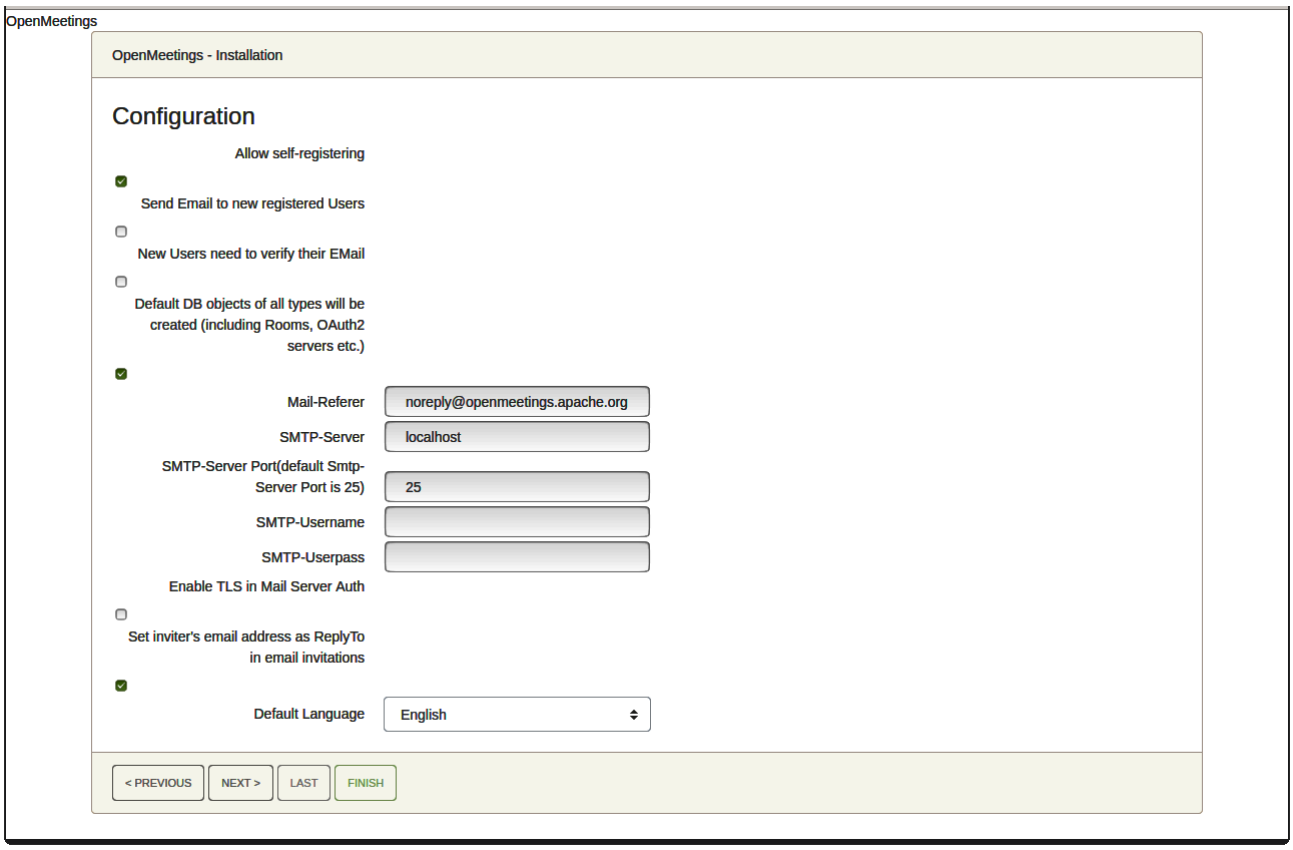
Email = email-adress ...of the previous user.

User Time Zone = country where is this server.

Name = example-openmeetings ...group name to choose.

Write down your username and password on a piece of paper, then it will be used to access OpenMeetings later.

Press the button "**Next >**" 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:



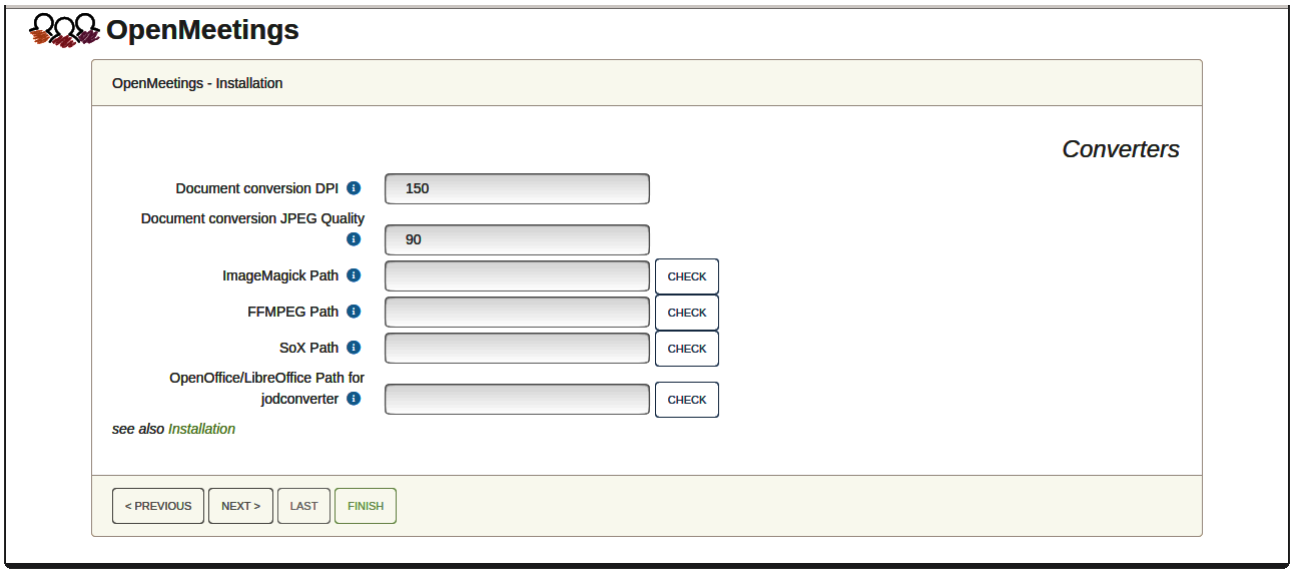
A valid example to configure the mail server with Gmail, is as follows:

(replace **john@gmail.com** with your real Gmail account)

Mail-Refer	==	john@gmail.com
SMTP-Server	==	smtp.gmail.com
SMTP-Server Port (default 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
Default Language	==	...select your language

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

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



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

ImageMagick Path == /usr/bin

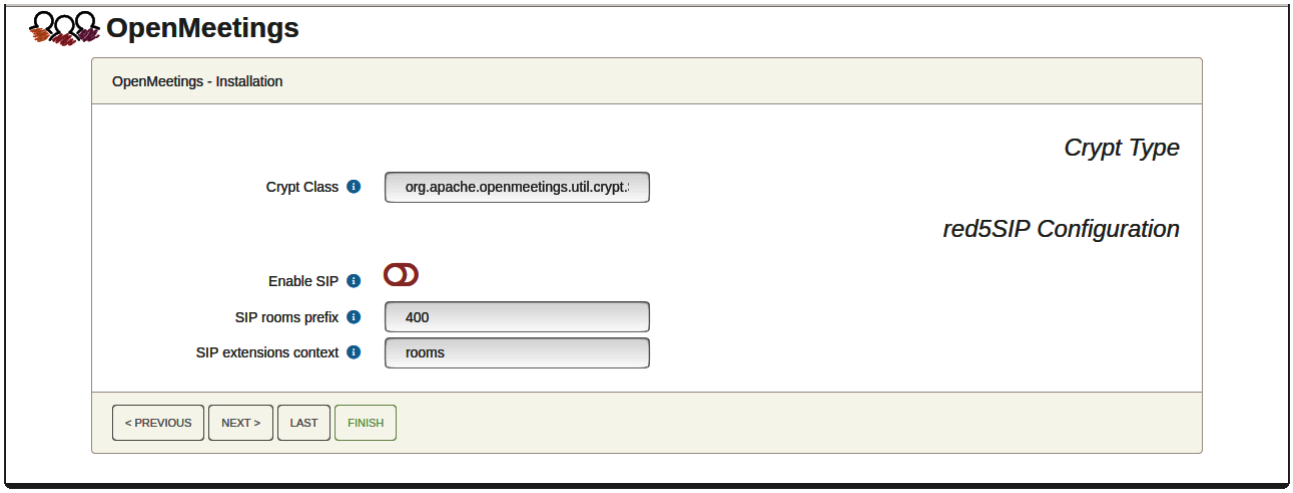
FFMPEG Path == /usr/bin

SOX Path == (nothing here)

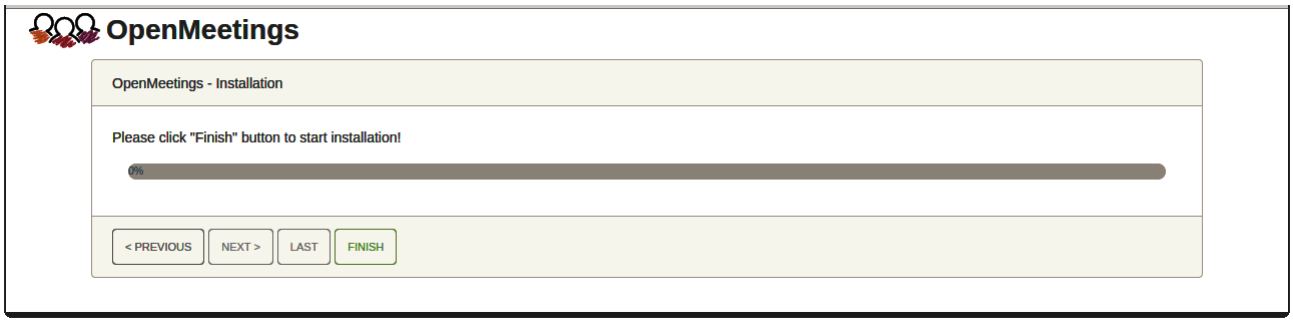
OpenOffice/LibreOffice Path for jodconverter == /usr/lib/libreoffice **(32bit - 64bit)**

As you go introducing paths, you can check if they are correct by pressing the button labeled **Check**.

Once completed the paths, please click the button "**Next >**" and move on to another page that we will leave as is:

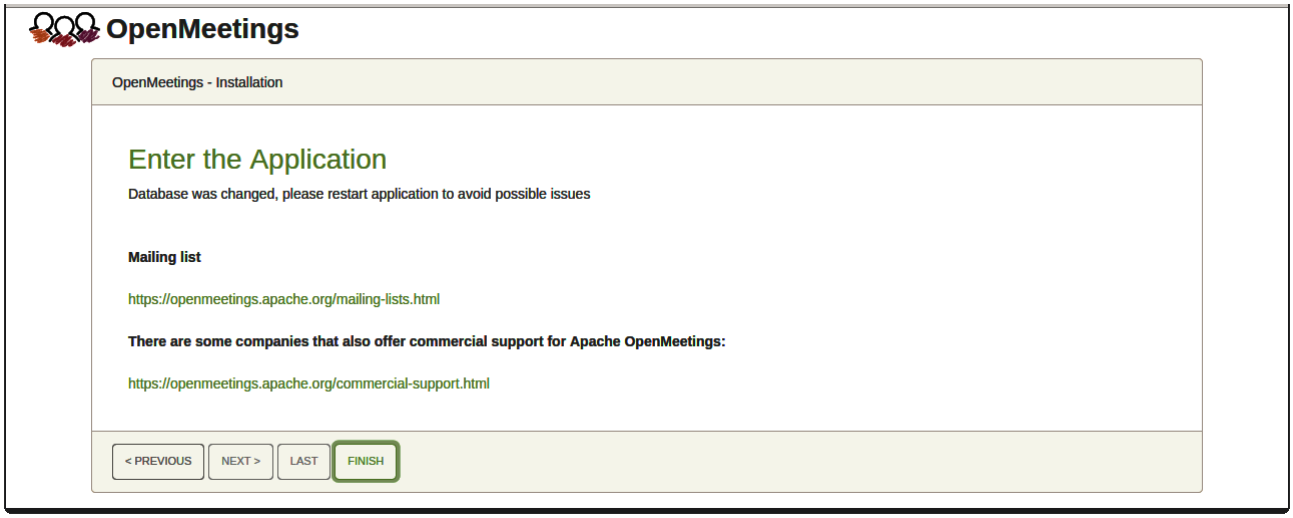


Now push the button "**Next >**" and will show this window:



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 **Enter the Application**.
First is needed restart the server:

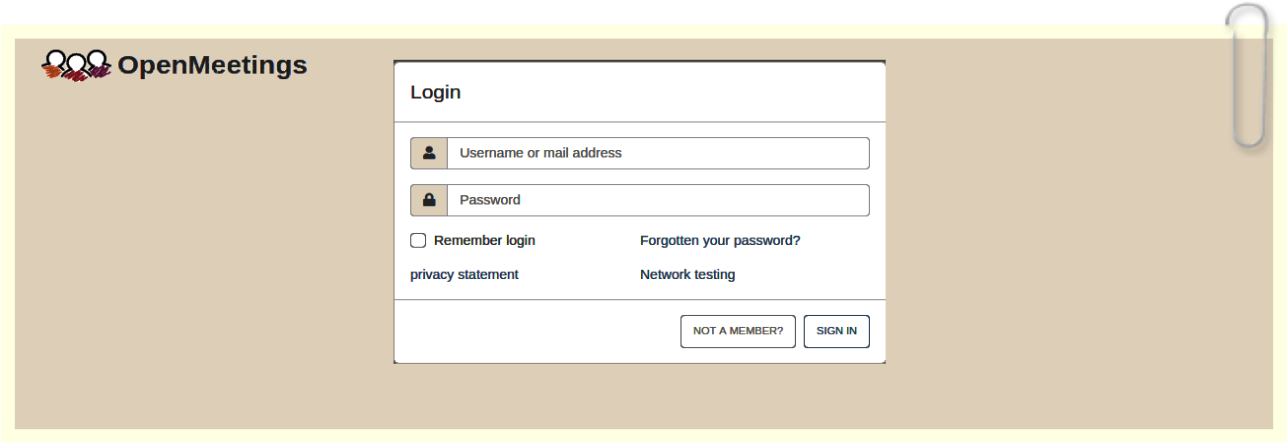
sudo /etc/init.d/tomcat3 restart



Now yes, you can clic on **Enter the Application**, or go with your browser to:

https://localhost:5443/openmeetings/

...and will take us to the entry of OpenMeetings:



Introduce the user's name and the password that you have choosen during the installation, push "**Sign in"** button, and…

...**Congratulations!**

To be able to connect from the Internet or LAN with this server, remember to open the following ports:

5443 8888

12)

------ Special ImageMagick configuration ------

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

sudo nano /etc/ImageMagick-6/policy.xml

...and comment the following lines, if is not, near to bottom file:

<policy domain="coder" rights="none" pattern="PS" />

<policy domain="coder" rights="none" pattern="PDF" />

...to

<!-- <policy domain="coder" rights="none" pattern="PS" /> -->

<!-- <policy domain="coder" rights="none" pattern="PDF" /> -->

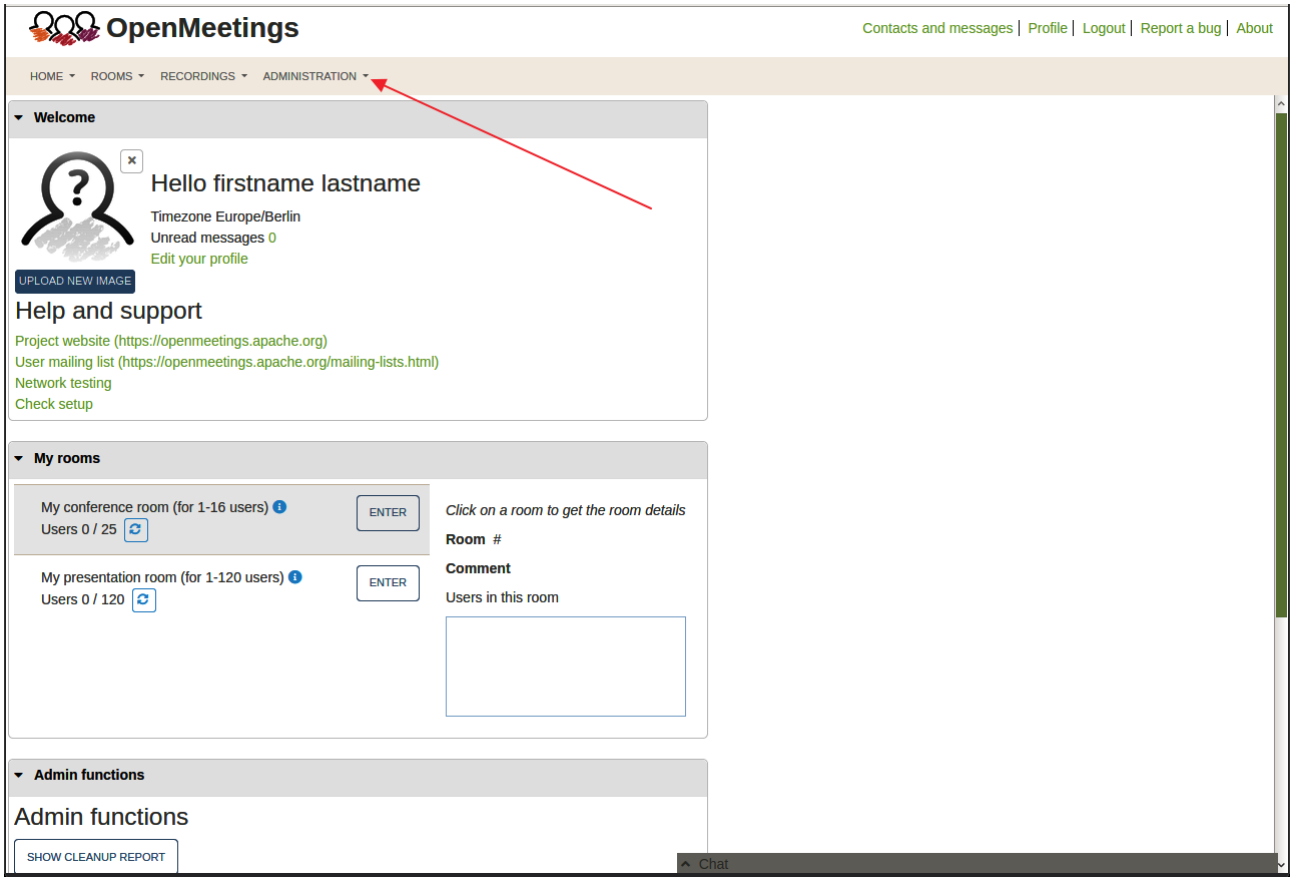
Press in the keyboard Ctrl+x, will ask to save, press Y, and press Enter to exit nano editor.

13)

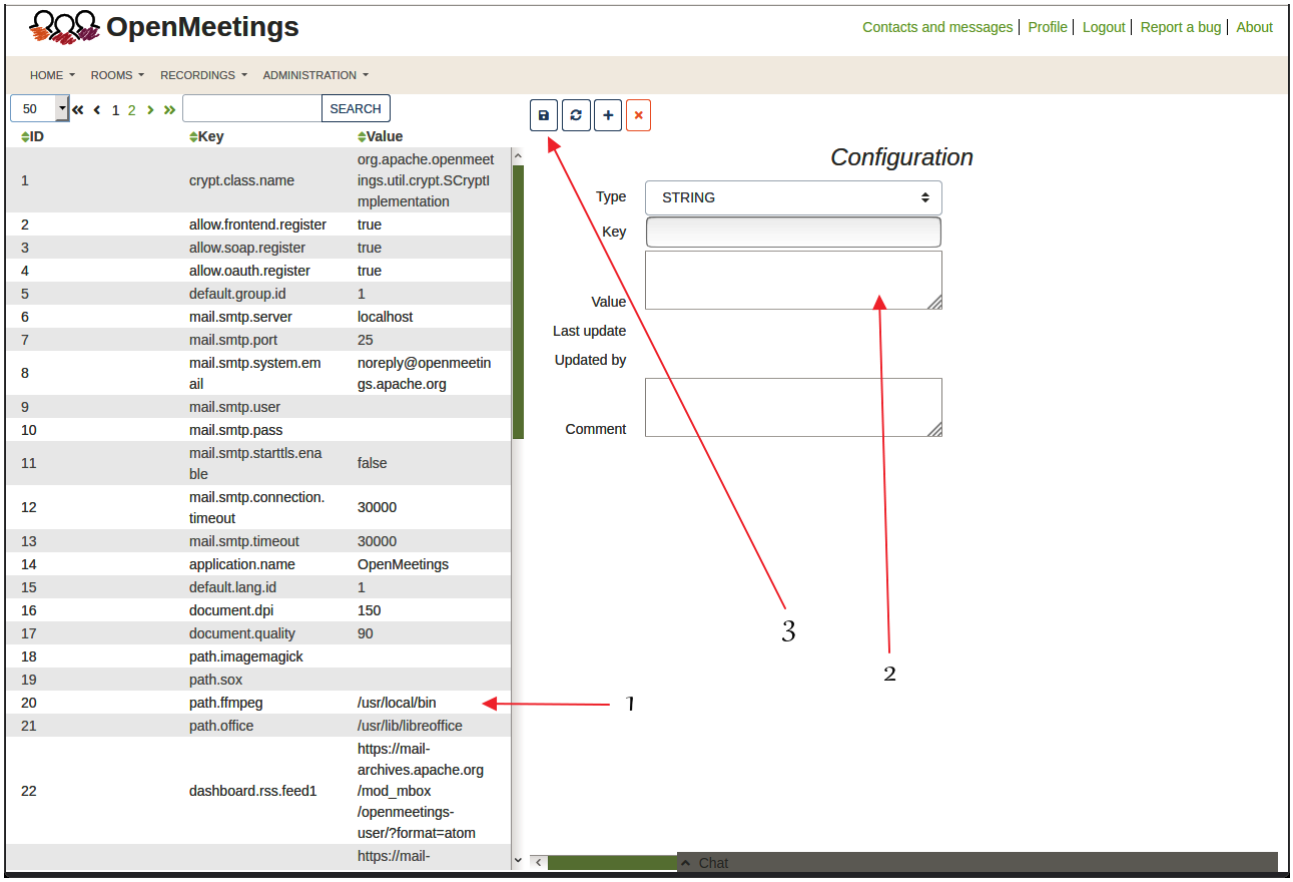
------ OpenMeetings's Configuration ------

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:



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	1
16	document.dpi	150
17	document.quality	90
18	path.imagemagick	
19	path.sox	
20	path.ffmpeg	/usr/local/bin
21	path.office	/usr/lib/libreoffice
22	dashboard.rss.feed1	https://mail-archives.apache.org/mod_mbox/openmeetings-user/?format=atom
		https://mail-

So to finish, the commands remember to run the servers are:

sudo /etc/init.d/mysql start ….MariaDB data server

sudo systemctl start docker.service ….Docker

sudo docker start kms ...Kurento Media Server

sudo /etc/init.d/tomcat3 start ….Tomcat-OpenMeetings

Remember, now is needed to follow the other downloaded tutorial for Coturn and configurations.

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

https://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 download:

OpenMeetings Wallpaper Download

A dvd live iso with OpenMeetings 5.0.0 on Ubuntu 18.04, it is at your disposal.

Can find it here:

Live iso download

Thank you.

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).