Installation of Apache OpenMeetings 6.1.0 on openSUSE Leap 15.2

This tutorial is made based on fresh installations of

openSUSE-Leap-15.2-DVD-x86_64.iso

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

Starting...

1)

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

Update operative system:

zypper refresh

zypper update

2)

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

Java 11 is necessary to work Tomcat-OpenMeetings 6.1.0. So, we install OpenJava 11:

zypper install -y java-11-openjdk java-11-openjdk-headless update-alternatives

Now we´ll see if is installed more than one java version. If it is, then please select our OpenJava 11:

update-alternatives --config java

...and to see the active version:

java -version

3)

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

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

Maybe it is installed, but for iso server specially:

zypper install -y libreoffice

4)

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

We install packages and libraries that we´ll need later:

(Only one line with space between both)

zypper install -y gcc ghostscript unzip freetype freetype-devel ncurses ncurses-devel make libz1 zlib-devel libtool bzip2 file-roller git autoconf automake pkg-config nmap nano

5)

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

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

zypper install -y ImageMagick giflib-devel

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

nano /etc/ImageMagick-7-SUSE/policy.xml

...and comment the two following lines 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.
This last must be repeated every time you update ImageMagick.

Sox, work the sound. Install it:

```
zypper install -y sox
```

6)

------ Compilation of FFmpeg and installation of packman repo ------

FFmpeg work the video. We install Packman repository to can install some libraries:

```
zypper ar -cfp 90 http://ftp.gwdg.de/pub/linux/misc/packman/suse/openSUSE_Leap_15.2/ packman
```

```
zypper update
```
...when ask, accept for allways typing the letter **a** and pressing **Enter**

(Only one line witht space between both)

```
zypper install -y glibc imlib2 imlib2-devel mercurial cmake freetype2-devel libfreetype6 curl git vlc libogg-devel libtheora-devel libvorbis-devel libvpx-devel fdk-aac-devel libmp3lame-devel
```

This ffmpeg compilation is based in this url:

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

I made a script that will download, compile and install ffmpeg. Download the script:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_opensuse15.sh
```

...concede permission of execution:

chmod +x ffmpeg_opensuse15.sh

...and run it, be connected to Internet:

./ffmpeg_opensuse15.sh

Will spend about 20 minutes. When finish, will announce it with this text:

...FFmpeg Compilation is Finished!

...then, please go to **step 7**.

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

7)

------ **Installation of MariaDB data base server** ------

MariaDB is the data base server.

We install it:

zypper install -y mariadb mariadb-tools

...and run mariadb:

systemctl start mysql.service

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

mysqladmin -u root password new-password

Make a database with his own user for OpenMeetings:

mysql -u root -p

...will ask for the root-mariadb password that we have just chosen:

MariaDB [(none)]> CREATE DATABASE open610 DEFAULT CHARACTER SET 'utf8';

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

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open610.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;

* open610 .....is the database name.
* hola ……is the user name for the database.
* 1a2B3c4D ..is the password of this user.

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

Now, we leave MariaDB:

MariaDB [(none)]> quit

8)

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

We´ll install OpenMeetings in /opt/open610. All the following information will be based on this directory.

cd /opt

...download the OpenMeetings file:

wget https://archive.apache.org/dist/openmeetings/6.1.0/bin/apache-openmeetings-6.1.0.tar.gz

...uncompress it:

tar xzvf apache-openmeetings-6.1.0.tar.gz

...and rename the obtained folder:

mv apache-openmeetings-6.1.0 open610

Download and install the connector file between OpenMeetings and MariaDB:

cd /opt

(Only one line without space between both)

wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/8.0.25/mysql-connector-java-8.0.25.jar

...and copy it to where must be:

cp /opt/mysql-connector-java-8.0.25.jar /opt/open610/webapps/openmeetings/WEB-INF/lib

9)

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

We´ll download the script to run Tomcat-OpenMeetings:

cd /opt

wget https://cwiki.apache.org/confluence/download/attachments/27838216/tomcat34

...copy it to where must be:

cp tomcat34 /etc/init.d/

...concede execution permission:

chmod +x /etc/init.d/tomcat34

If you made the installation in any other different path to /opt/open610, please edit the script and modify the line:

CATALINA_HOME =/opt/open610

...to

CATALINA_HOME =/your-path-installation

10)

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

Restart mariadb, (be connected to Internet):

systemctl restart mysql.service

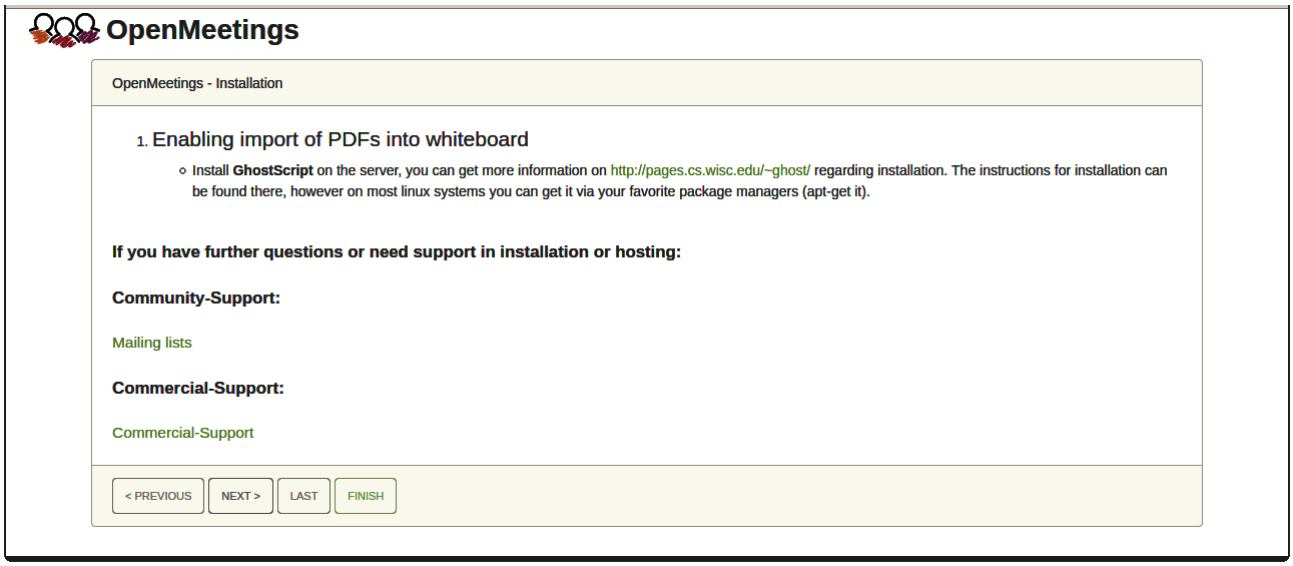
...and run tomcat-OpenMeetings, please, in a new window terminal:

/etc/init.d/tomcat34 start

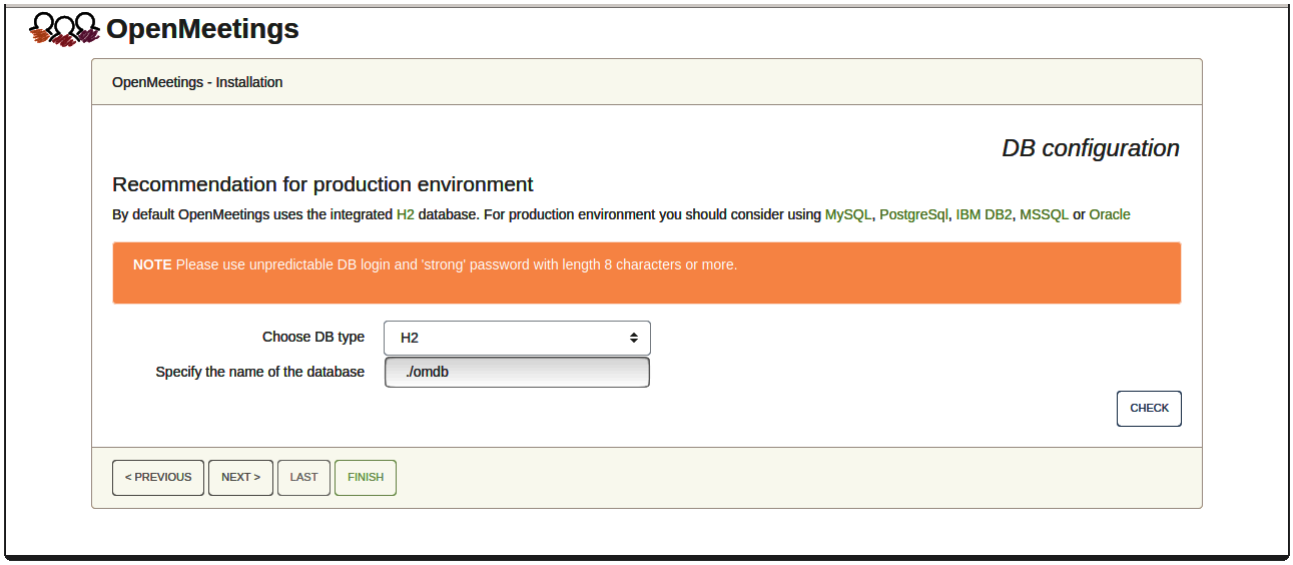
...wait about 40 seconds in order tomcat can run completly. Then, go with the browser to:

https://localhost:5443/openmeetings/

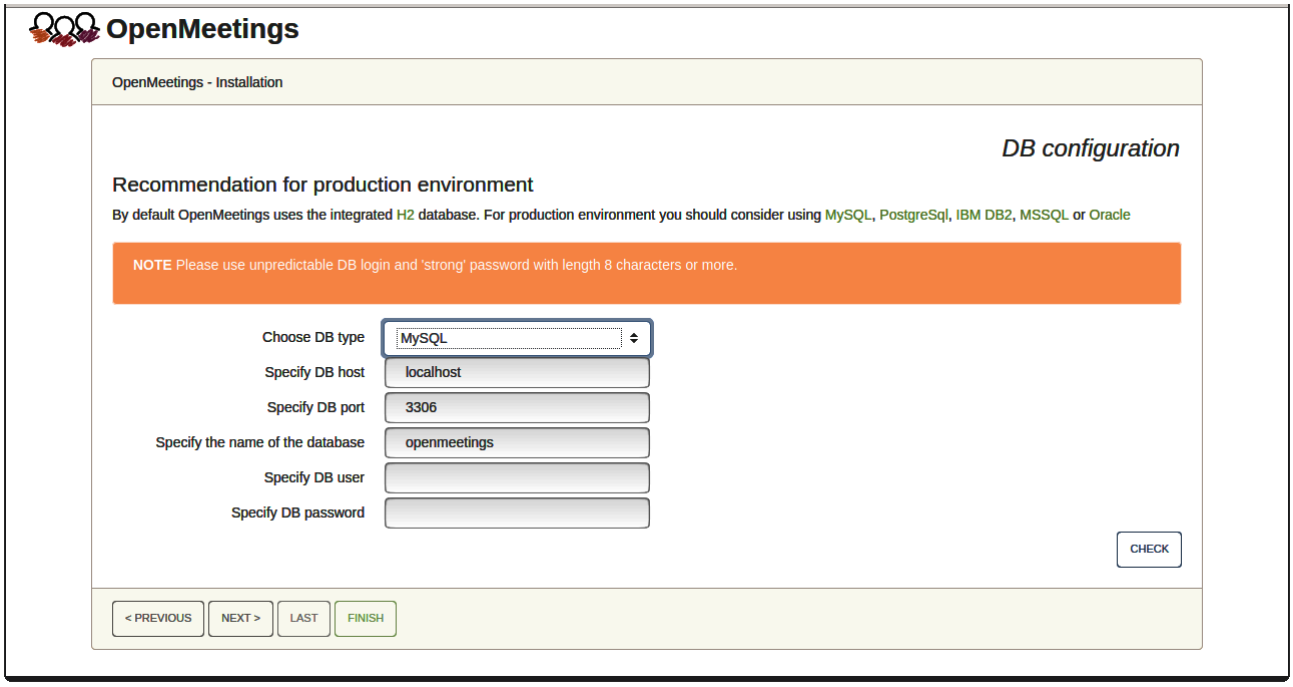
...there will appear a page similar to this one:



...press on "**Next >**" (bottom), and will show the default 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 7:

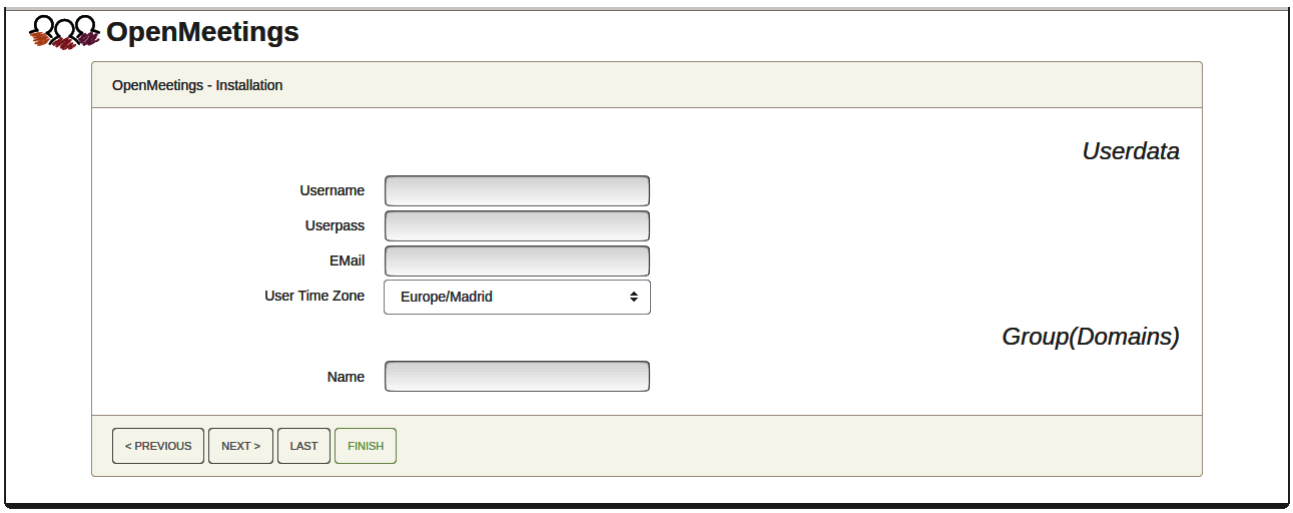
Specify the name of the database = open610

Specify DB user = hola

Specify DB password = 1a2B3c4D

...if you choose any other data, please type it here.

Press "**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.

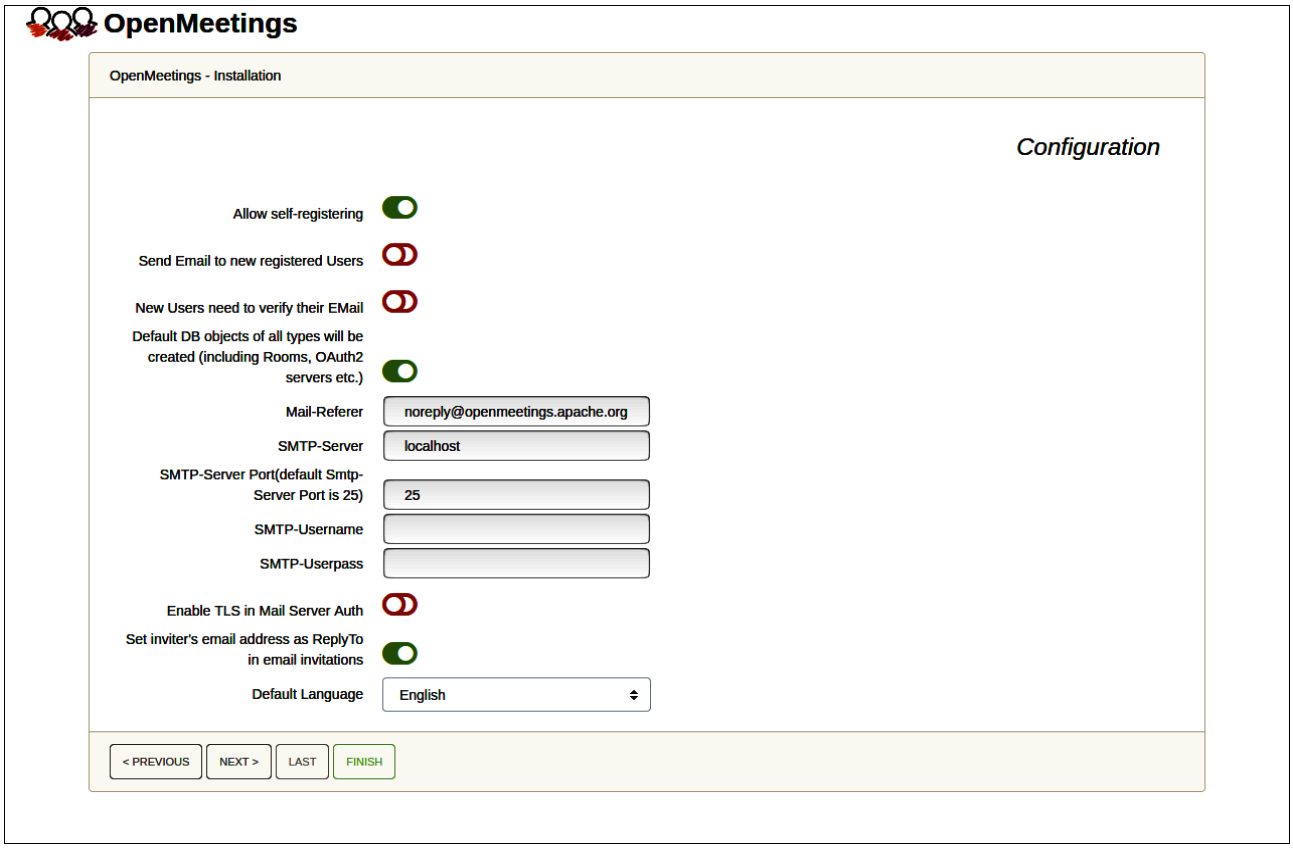
Userpass = a-password ...for the previous user.

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 "**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:



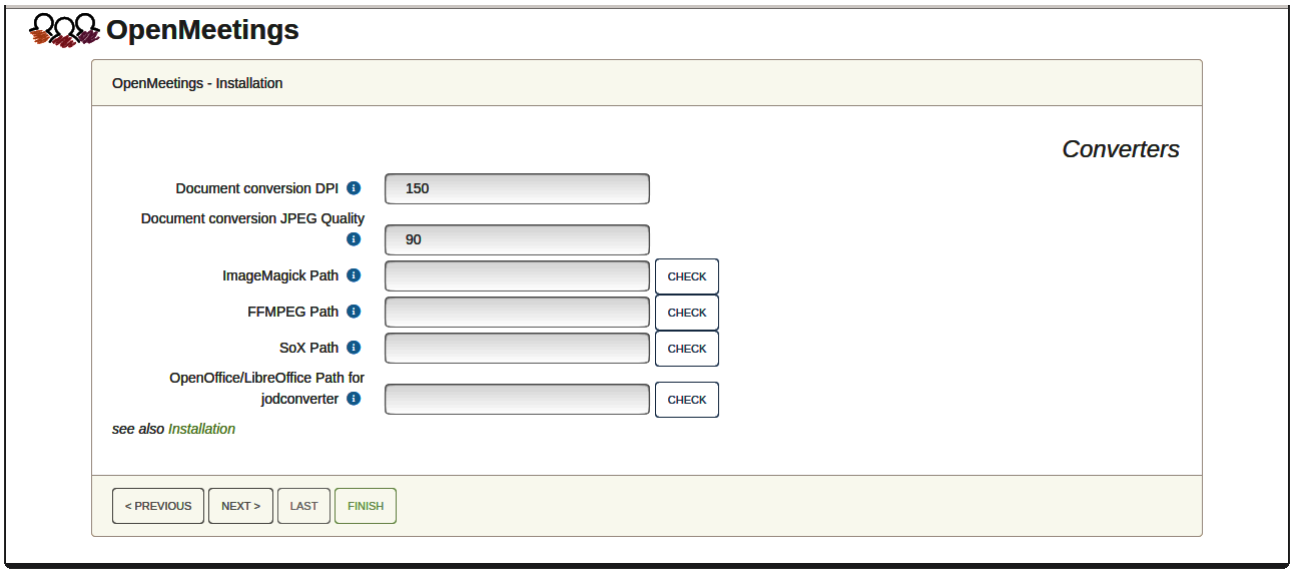
A valid example to configure the mail server with Gmail, is as follows:

(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 can modify it as you like.

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 == ...here empty

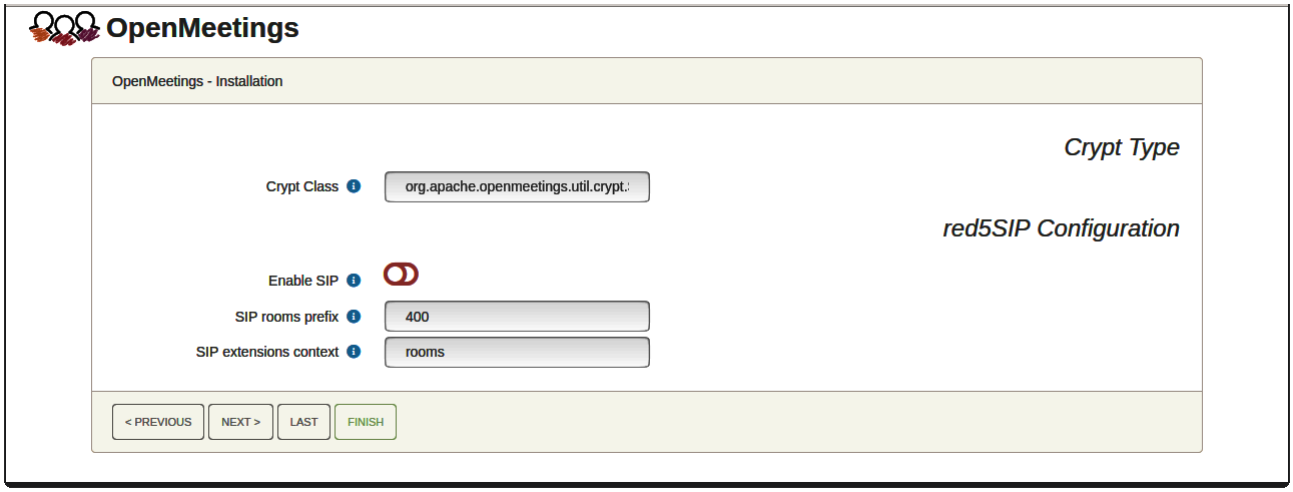
FFMPEG Path == /usr/local/bin

SOX Path == ...here empty

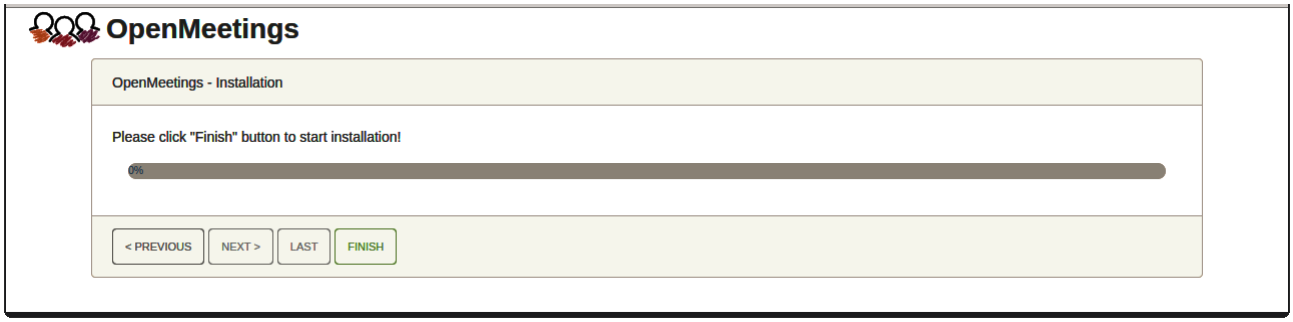
OpenOffice/LibreOffice Path for jodconverter == /usr/lib64/libreoffice

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

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

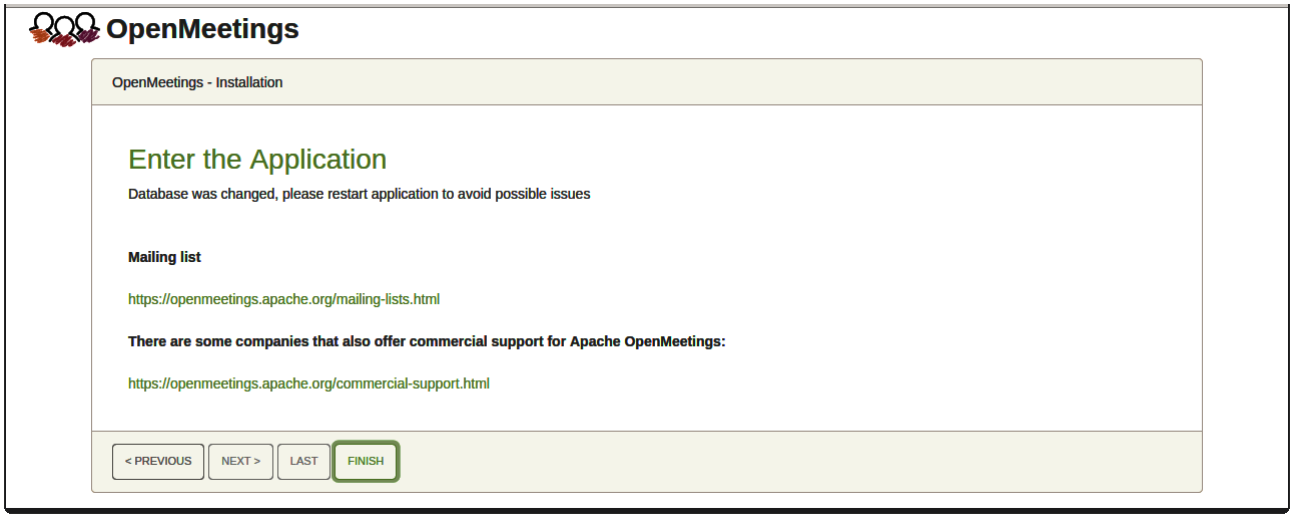


Now push the button "**Next >**" **and w**ill show this window:

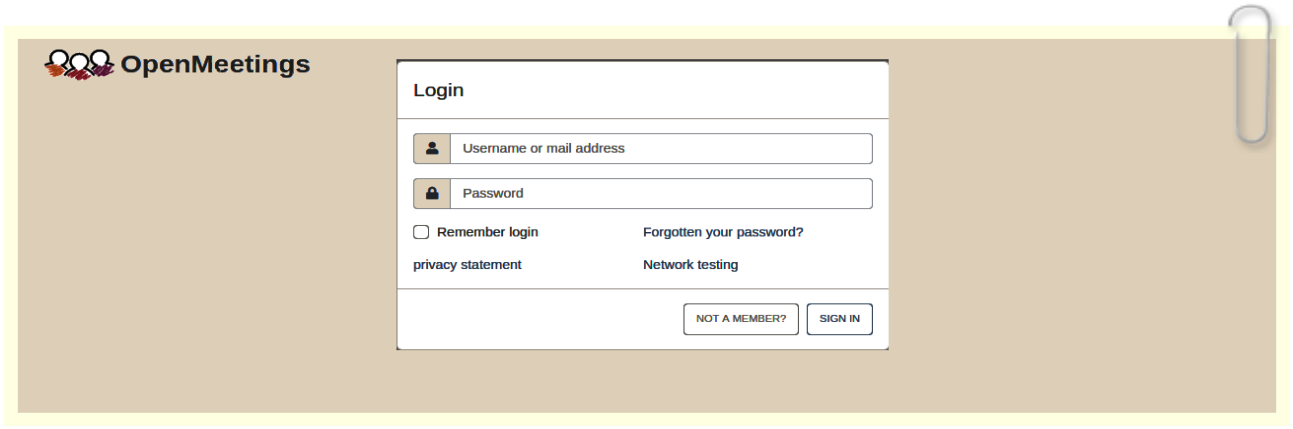


Press "**Finish"** button...wait a seconds untill the tables are fill in the database.
When has concluded, this another page will appear. Don´t clic on **Enter the Application**.
First is need it to restart the server. Please, open a new terminal and restart tomcat:

/etc/init.d/tomcat34 restart



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.



11)

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

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

zypper install -y 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

...stop OpenMeetings, MariaDB and Docker:

/etc/init.d/tomcat34 stop

systemctl stop mysql.service

systemctl stop docker.service

…and reboot the machine. After this, please follow in the step 13:

reboot

13)

------ Installation 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 now we´ll install kurento-media-server. But first we´ll create the folders where will be the video recorder files we should make in rooms:

sudo mkdir -p /opt/om_data

…and install kurento:

(Only one line, with space between both)

sudo docker run -d --name kms -p 8888:8888 --mount type=bind,source=/opt/om_data,target=/opt/om_data kurento/kurento-media-server

Run kurento-media-server:

docker start kms

Run MariaDB for OpenMeetings:

systemctl start mysql.service

...and run Tomcat-OpenMeetings:

/etc/init.d/tomcat34 start

...wait around 30 seconds to tomcat run completly.

Now you can access OpenMeetings.

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

https://localhost:5443/openmeetings

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

5443 8888

After installing OpenMeetings, you still need to install Coturn (Turn server), for which you can download the following tutorial and follow it from step 5:

Installation SSL certificates and Coturn for OpenMeetings 6.1.0 on openSUSE Leap 15.2

The next time you like launch the servers, please do it following this order:

systemctl start mysql.service

systemctl start docker.service

docker start kms

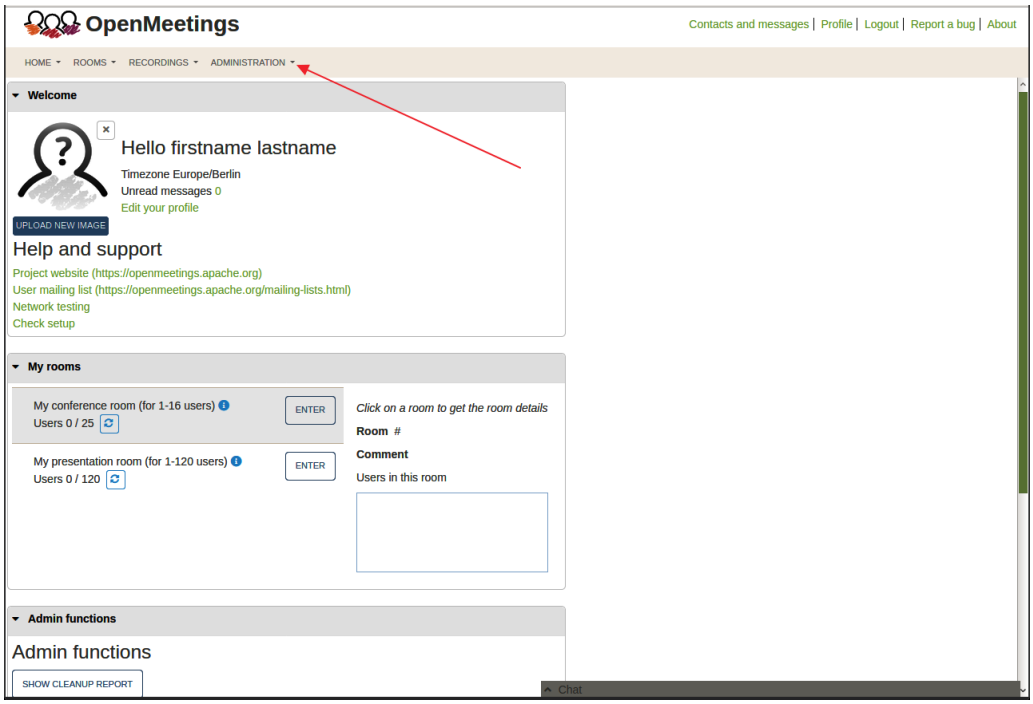
/etc/init.d/tomcat34 start

14)

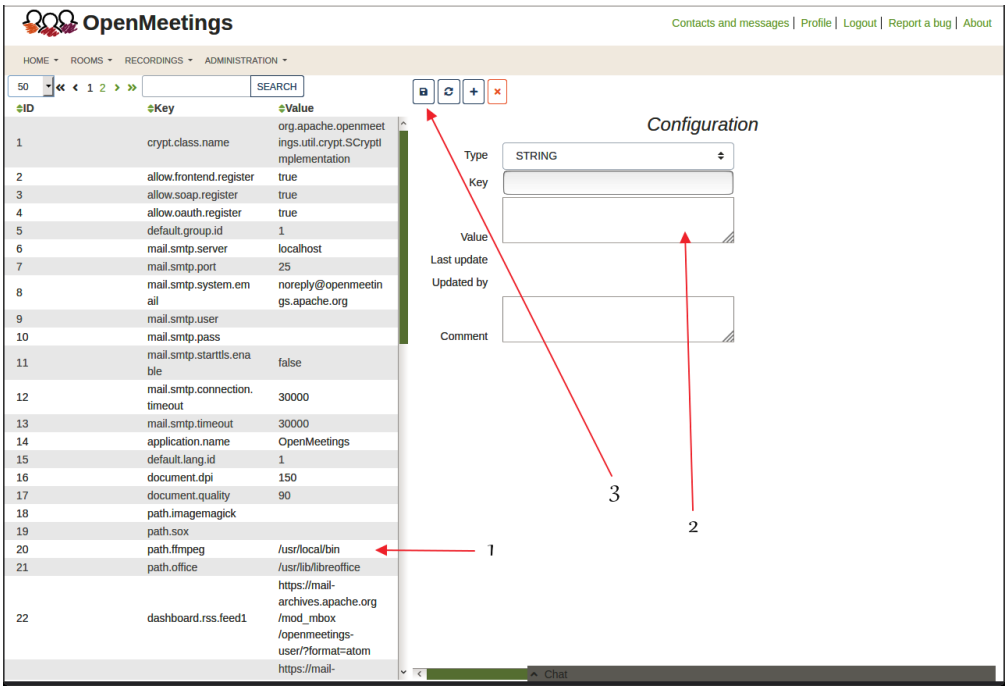
------ OpenMeetings's configuration ------

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:



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

https://openmeetings.apache.org/mailing-lists.htm

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 6.1.0 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).