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** ------

Open a terminal as root:

sudo pacman -Syu

2)

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

Java it is necessary for OpenMeetings 5.0.0. We´ll install Open Java 1.8.

sudo pacman -S jdk8-openjdk

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

sudo archlinux-java set java-8-openjdk/jre

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 ncurses 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:

suso 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

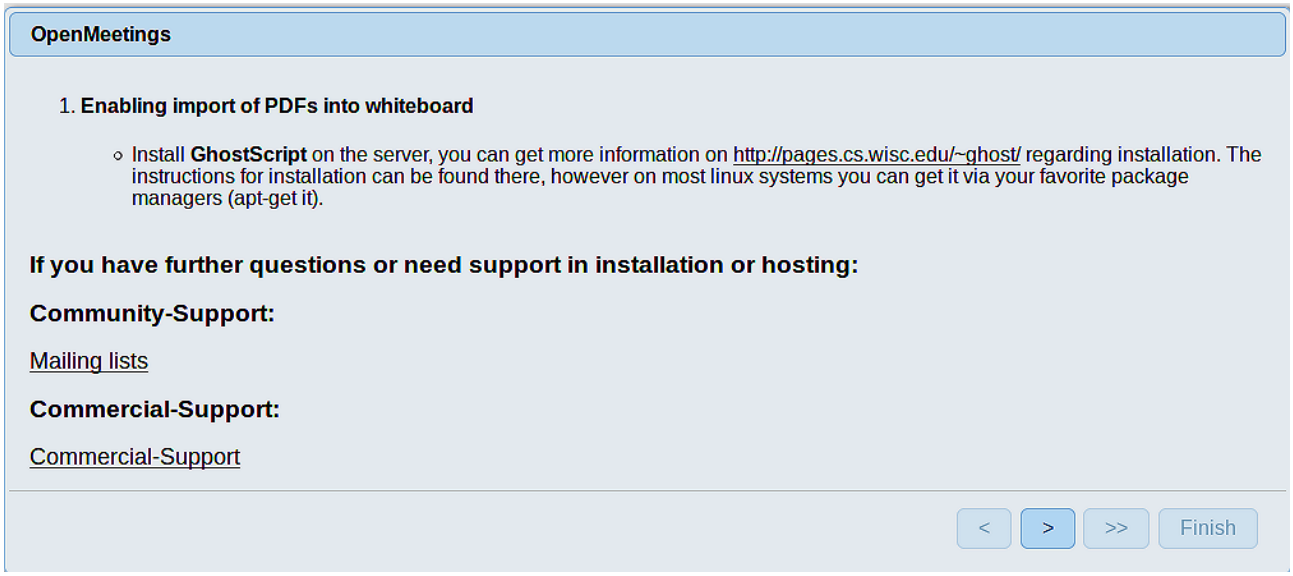
...and run tomcat-OpenMeetings:

sudo /etc/init.d/tomcat3 start

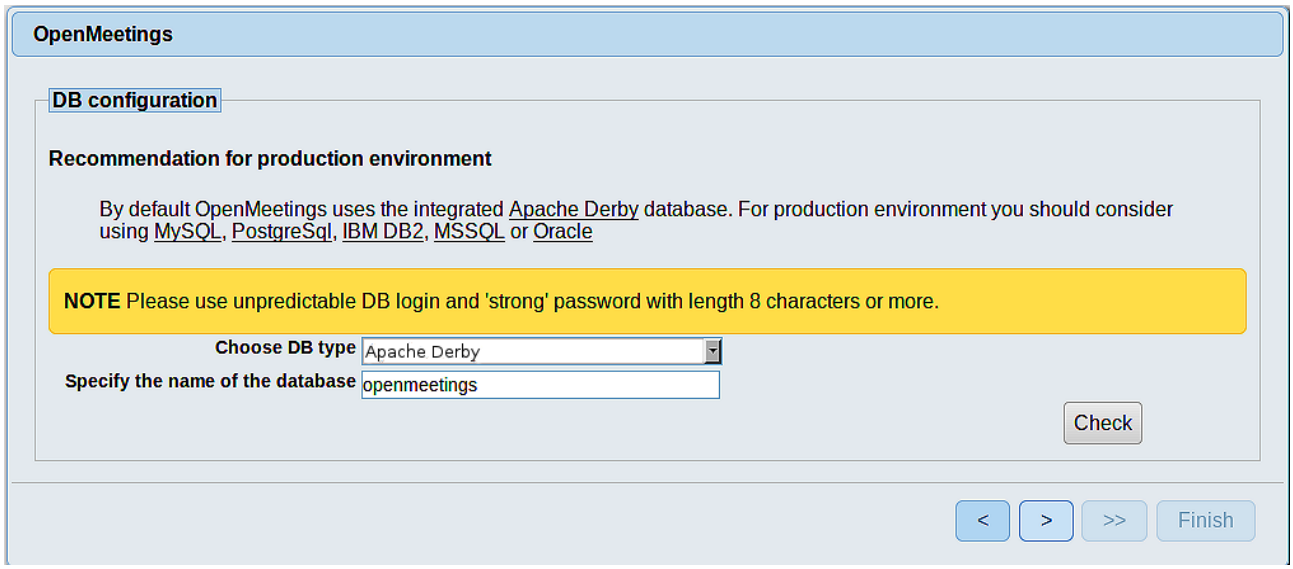
...wait around 40 seconds for running Tomcat completly. Then, go with the browser to:

http://localhost:5080/openmeetings

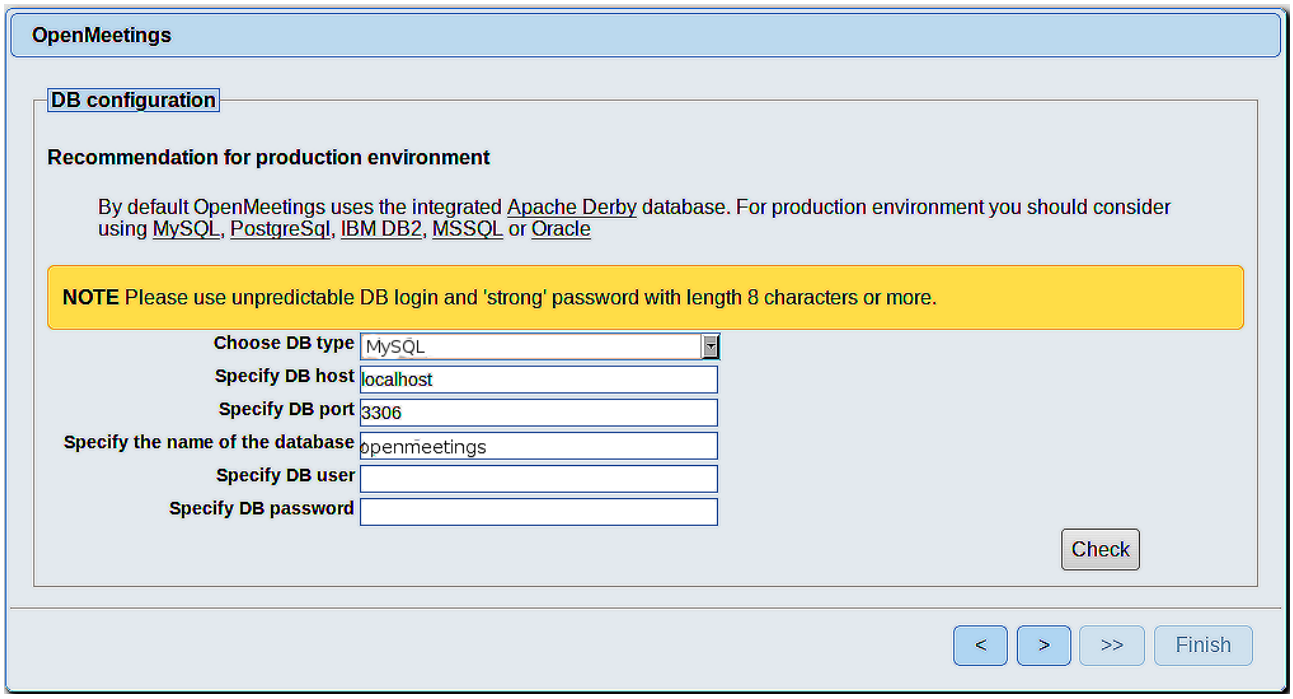
...there will appear a page similar to this one:



...push on > (bottom), and will show the default configuration with Derby, but we employ MySQL (MariaDB):



...so, 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:

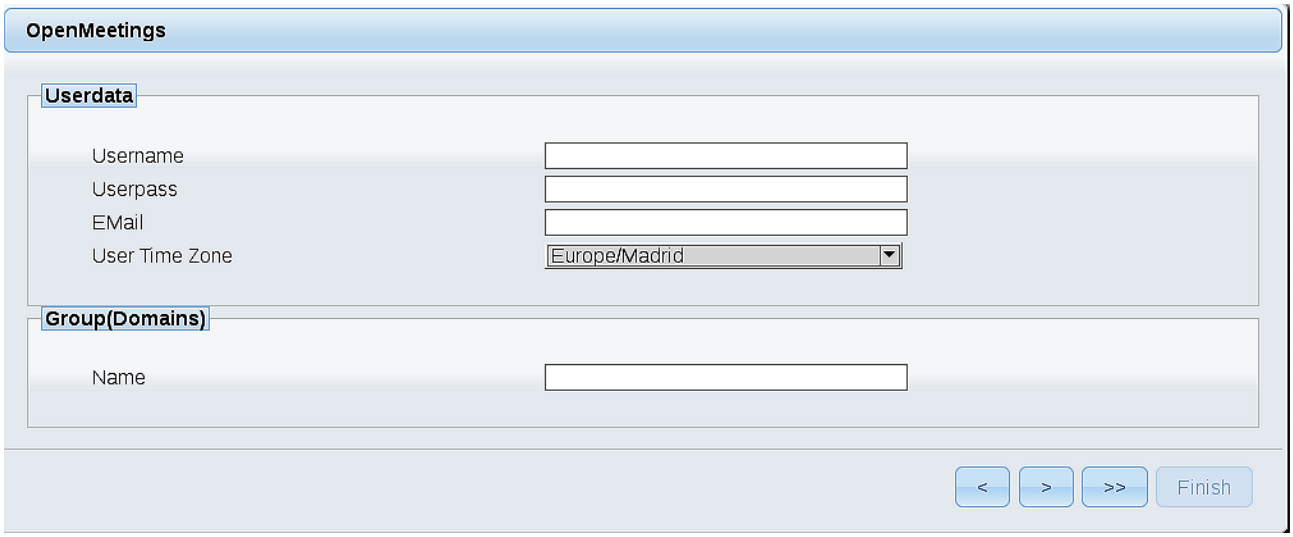
Specify the name of the database = open500

Specify DB user = hola

Specify DB password = 1a2B3c4D

If you choose differents 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.

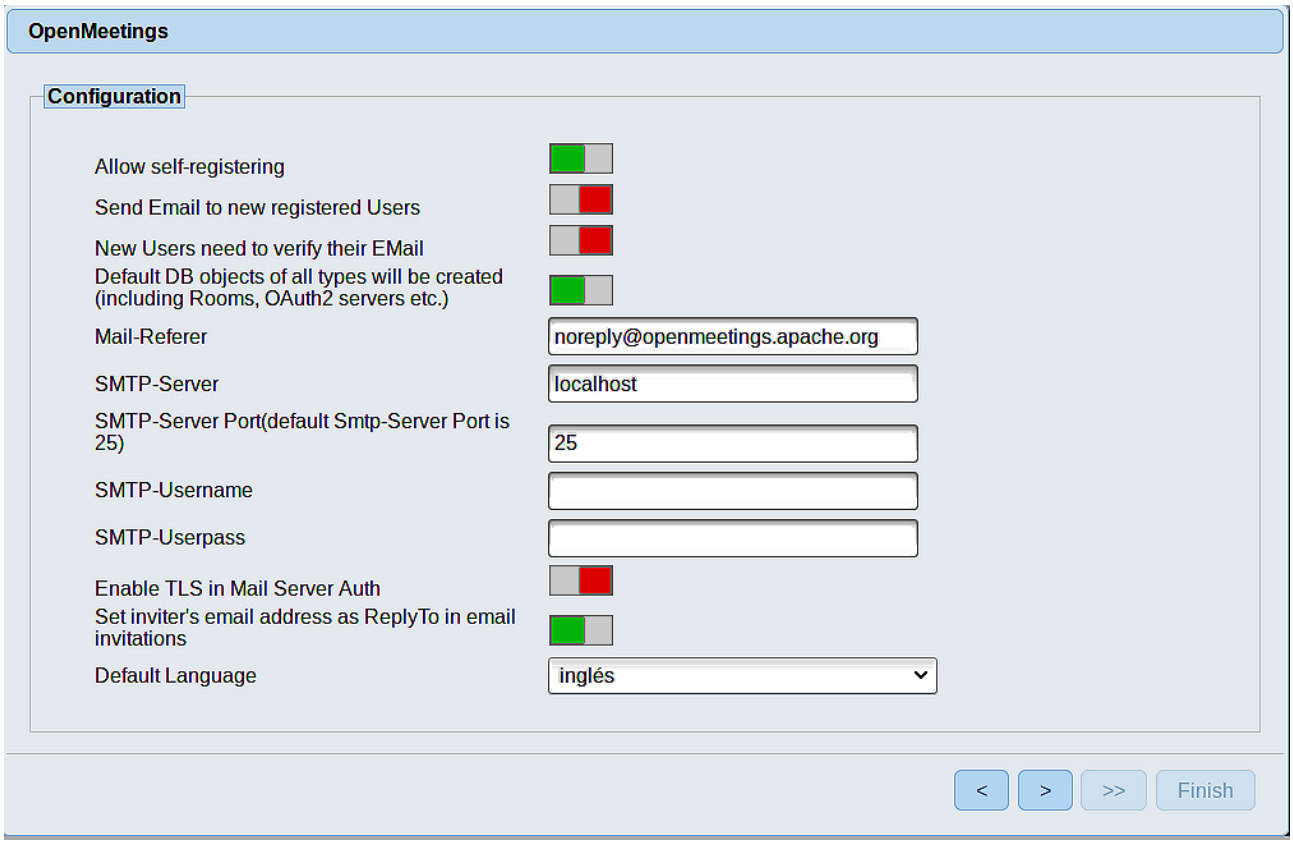
Userpass = a-password ...for the previous user.

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:

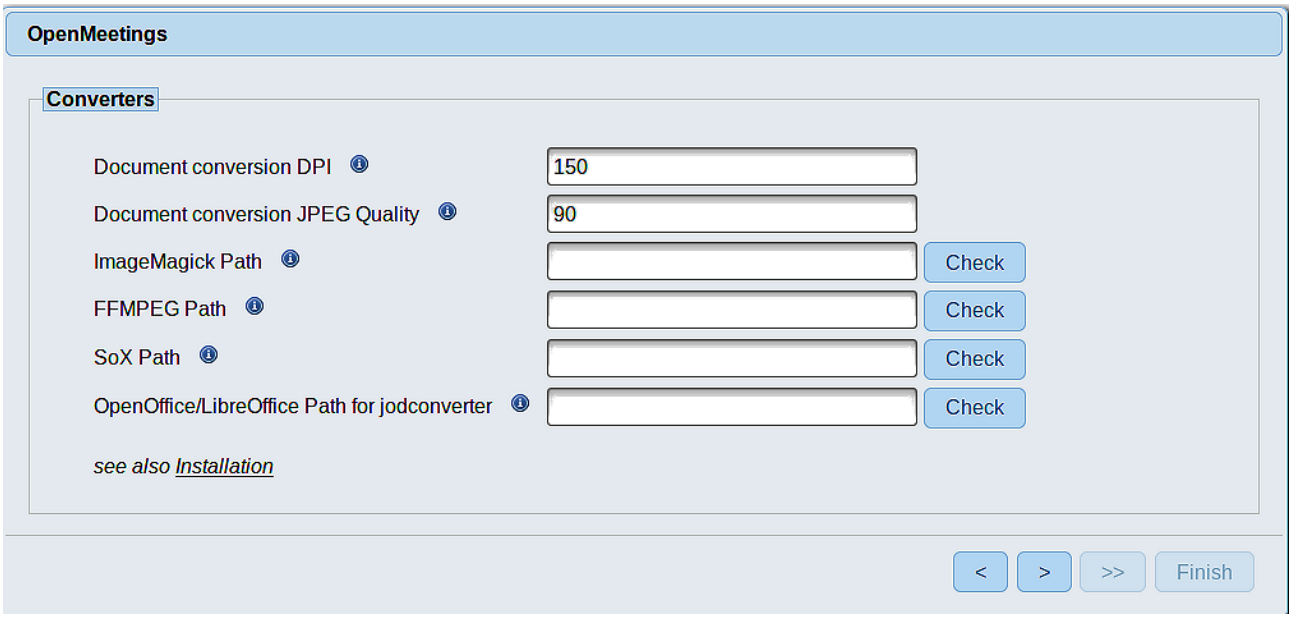


A valid example to configure the mail server with Gmail, is as follows:
(replace **john@gmail.com** with your real Gmail account)

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 like.

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



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

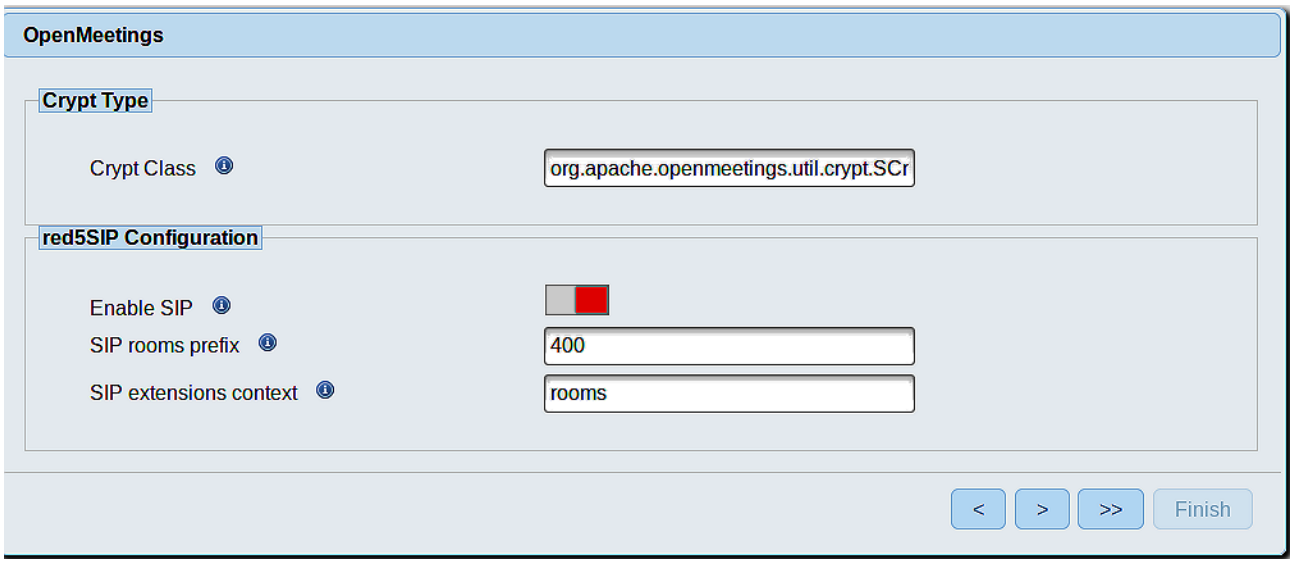
ImageMagick Path == /usr/bin

FFMPEG Path == /usr/local/bin

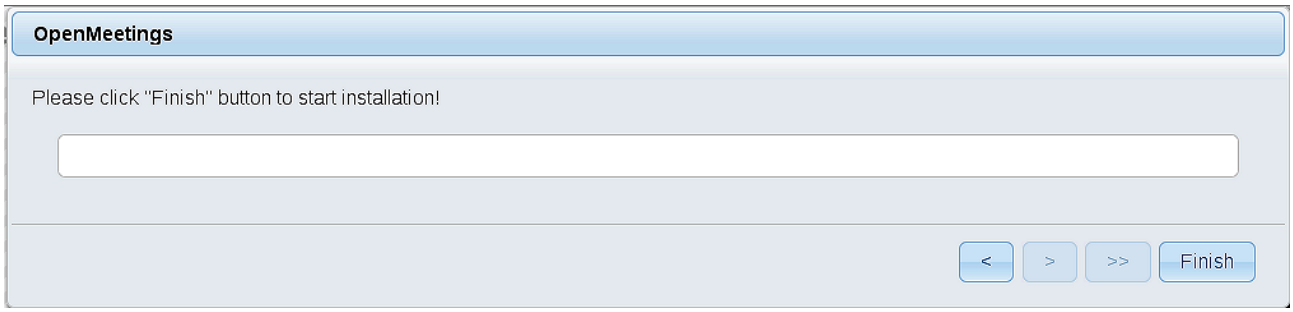
SOX Path == /usr/bin

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:



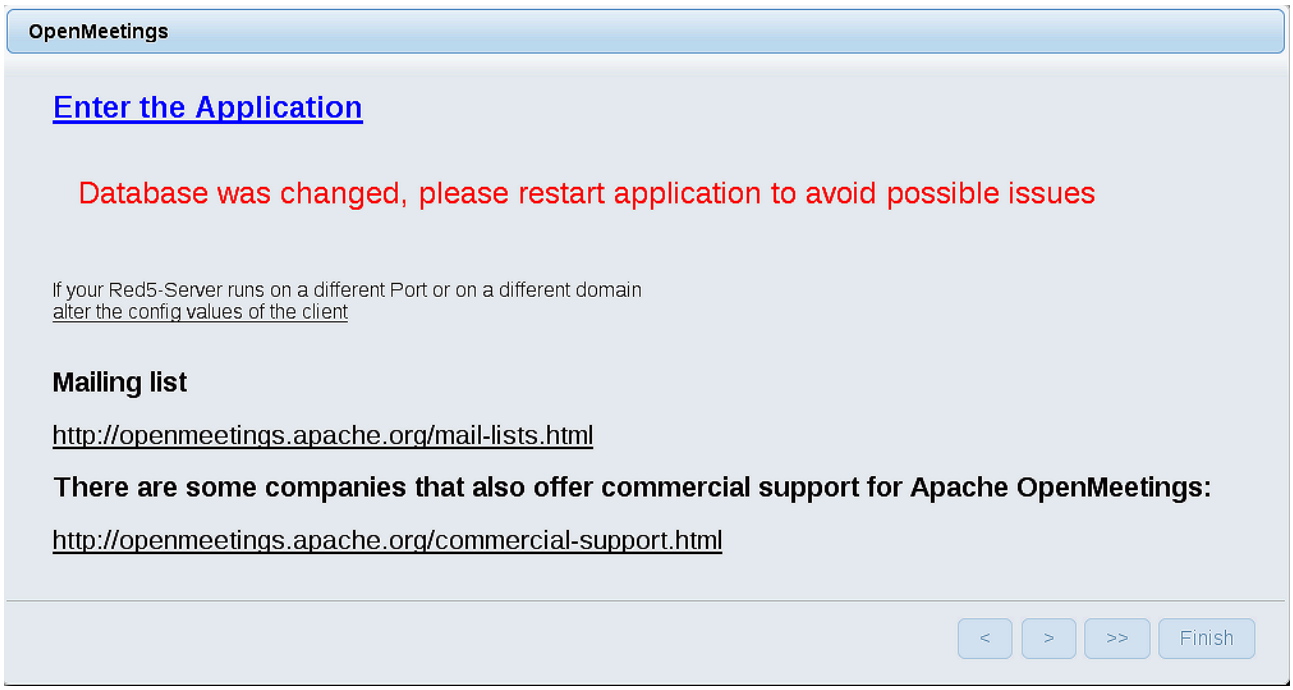
Now, touch the button > Will show this window:



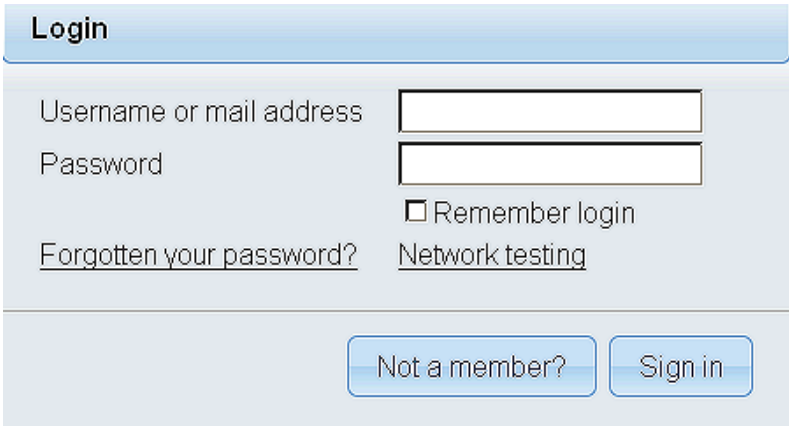
Press **Finish** button...wait a seconds untill the tables are fill in our database.

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



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.

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 completly.

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 neccesary open these ports:

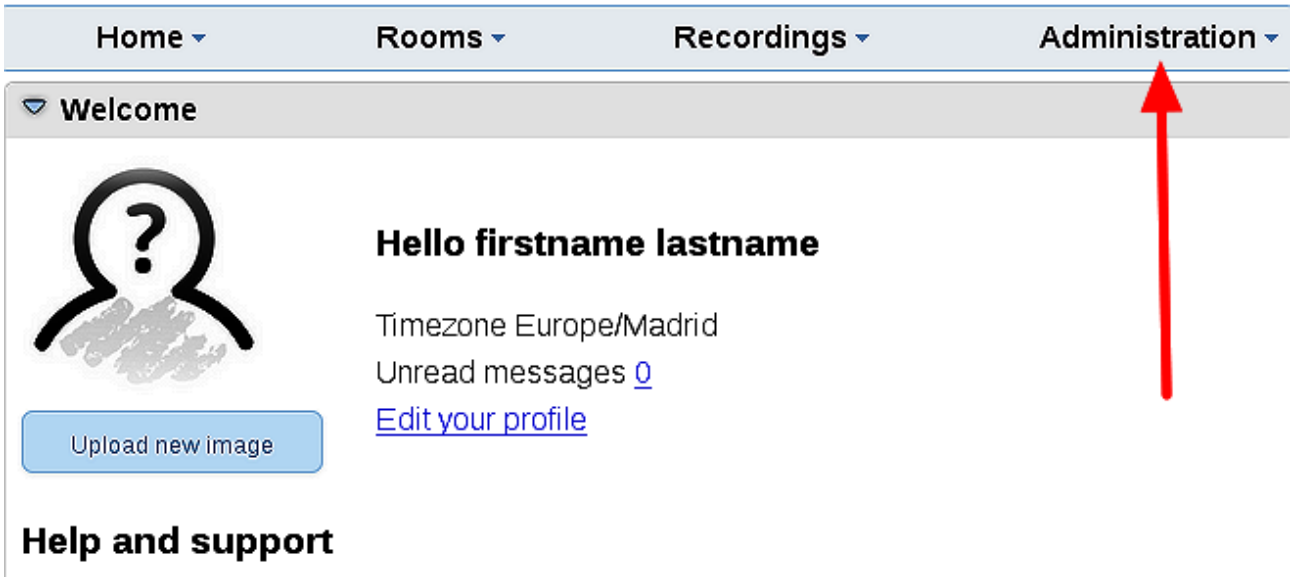
http = **5080 8888** ------- https = **5443 8888**

13)

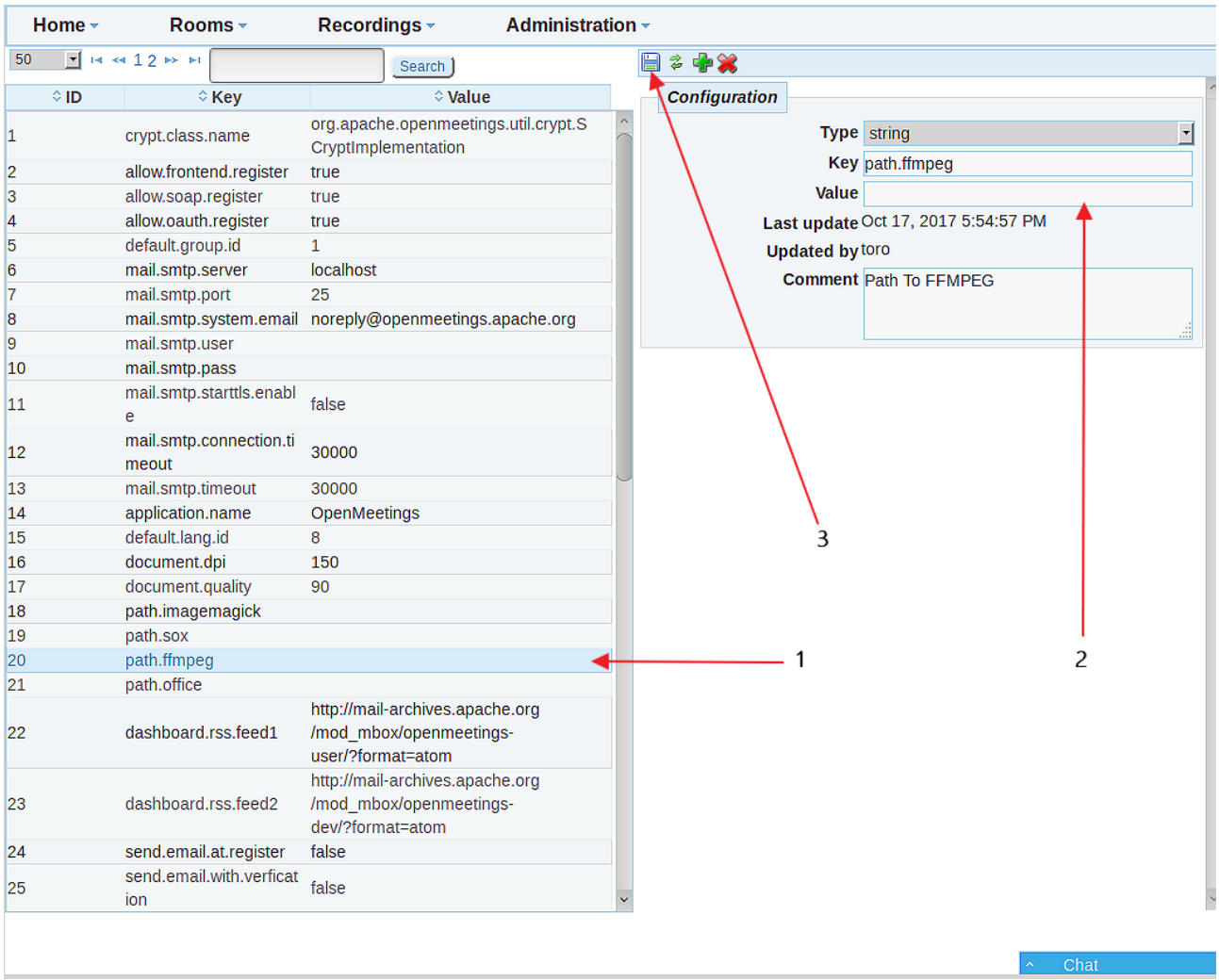
------ Configuration of OpenMeetings ------

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

Administration → Configuration



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



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 downoload:

Download

Thank you.

Alvaro Bustos