



## **Installation of Apache OpenMeetings 4.0.4 on PCLinuxOS 2018**

**pclinuxos64-MATE-2017.11.iso**

This tutorial is made based on fresh installations of PCLinuxOS 2017 Mate.

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.4 stable, that is to say, will suppress his compilation. It is done step by step.

25-5-2018

Starting...

1)

Update and upgrade the operative system. Please go to:

[apt-get update](#)

[apt-get upgrade](#)

2)

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

(Only one line with space between each one)

```
apt-get install -y libjpeg-progs giflib-progs freetype-devel gcc-c++ zlib1-devel libtool bison bison-  
static-devel file-roller ghostscript freetype unzip gcc ncurses make zlib1 bzip2 wget ghostscript  
ncurses zlib1 zlib1-devel x264-devel git make automake nasm pavucontrol rpm-installer freetype2  
curl
```

3)

### ----- Installation of LibreOffice and Java Sun 1.8.x -----

When we install LibreOffice also will install automatically Java sun 1.8.x. OpenMeetings 4.0.4 need java 1.8 to work.

LibreOffice will convert to pdf the uploaded office files. We install it:

```
lomanager
```

...if show a message like this: *Please Update your system. (more details...)....*

...then please go to:

**Synaptic --> Mark All Upgrades --> Apply --> Apply**

...and we type in shell newly:

```
lomanager
```

...will show a window where select your locale language for LibreOffice, and after this answer yes or ok to any question.

Will start installing Java sun 1.8.x and continue with LibreOffice. If would not install java, you can do it:

```
apt-get install java-sun
```

Once the installation it is finished you can change the LibreOffice language interface in:

**Tools --> Options --> Language settings --> Languages --> User interface (select your language) --> OK**

LibreOffice (installed or updated 22-5-2018) is in: [/opt/libreoffice5.4](#)

4)

### ----- Installation of Adobe Flash Player -----

Flash player it is installed in Mate already, but not in KDE minimum. So will install it and firefox also, if you like it. Adobe Flash Player even is need it for cam in OpenMeetings:

```
apt-get install -y firefox flash-player-plugin
```

5)

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

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

```
apt-get install ImageMagick
```

**Sox**, work the sound. It is installed, but we'll uninstall it and compile a newer version than it is in the repo:

```
apt-get remove sox
```

...and download and compile the new version:

```
cd /opt
```

```
wget http://sourceforge.net/projects/sox/files/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
```

6)

----- **Install, remove, rename somes packages** -----

We'll install lame for mp3 audio:

```
apt-get install lame
```

We'll remove ffmpeg that automatically was installed in Mate. In KDE minimum was not but to do it is not bad. Later we'll build our own ffmpeg.

```
apt-get remove ffmpeg
```

...will remove automatically vokoscreen also.

Rename x264, that we'll compile later:

```
mv /usr/bin/x264 /usr/bin/x264-synaptic
```

...because if we remove x264 will lose automatically too many packages.

Now will block this x264 version in Synaptic and then can't update installing a new version:

**Synaptic** → **click on x264 line** → **Package (Up left)** --> **Lock Version**

7)

### ----- Compiling and installing FFmpeg -----

To compile and install ffmpeg, lame, yasm and x264, i've followed a guide with some modifications. Files updated 16-2-2107:

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

Install a librarie need it for the compilation:

Modify **your\_username** to your real user name:

```
cd /home/your_username
```

...download it:

(Only one line without space between both)

```
wget http://download.opensuse.org/repositories/home:/ganglia:/musescore2/SLE11/x86_64/libmp3lame-devel-3.99.5-2.1.x86_64.rpm
```

Please, go to your **/home/your\_username**, and (be connected to Internet):

**Right clic on the libmp3lame-devel-3.99.5-2.1.x86\_64.rpm file --> Open with --> RPM-installer**  
→ will ask for root password → push **Enter**

The result of any recording we do in OpenMeetings, will be in mp4 format.

For compile ffmpeg, i build a scrip that will download, compile and install it.

Download it:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg-pclinuxos.sh
```

...concede permission of execution:

```
chmod +x ffmpeg-pclinuxos.sh
```

...and run it (be connected to Internet):

```
./ffmpeg-pclinuxos.sh
```

The compilation spend about 25 minutes. When be finish, will announce it, with this text:

**FFmpeg Compilation is Finished!**

Block in Synaptic: **ffmpeg** and **yasm** ... *one by one*:

**Synaptic** → click on **ffmpeg** line → **Package** (up to left) --> **Lock Version**

...don't worry if look the packages are not installed.

***This is very important:*** When you update or upgrade the operative system, please do it from Synaptic, so will respect the locked versions, thing that will do not if update or upgrade from the shell.

FFmpeg is installed in: /usr/local/bin

8)

#### ----- Installation of MySQL and building database -----

We'll employ MySQL server, for the database.

```
apt-get install -y mysql
```

...run mysql:

```
service mysqld start
```

...we do a mysql upgrade:

```
mysql_upgrade
```

...and give a root mysql password replacing **new-password** for your own preference, and remember it:

```
/usr/bin/mysqladmin -u root password new-password
```

We'll build a database and an user for OpenMeetings. User password must be of 8 digits minimum:

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

...will ask for password (you just made right now) type it and make the database:

```
mysql> CREATE DATABASE open404 DEFAULT CHARACTER SET 'utf8';
```

(Only one line with space between both)

```
mysql> GRANT ALL PRIVILEGES ON open404.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

...and leave MySQL:

```
mysql> quit
```

- \* open404 ..... is the data base name
- \* hola ..... is the user name for this data base
- \* 1a2B3c4D ..... is the password for this user

You are free to change these names and password, but remember them. Later we'll need it.

Now we'll open mysql port 3306, so OpenMeetings can connect with it:

For **KDE**:

```
kwrite /etc/my.cnf
```

For **MATE**:

```
pluma /etc/my.cnf
```

...and the line number 51: skip-networking

...modify so, commented:

```
# skip-networking
```

...and restart mysql:

```
service mysqld restart
```

9)

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

We'll install the 4.0.4 stable version.

We'll make the OpenMeetings installation in /opt/red5404

Make a folder called **red5404** where download the Apache OpenMeetings file and where make the installation:.

```
mkdir /opt/red5404
```

```
cd /opt/red5404
```

```
wget http://archive.apache.org/dist/openmeetings/4.0.4/bin/apache-openmeetings-4.0.4.zip
```

```
unzip apache-openmeetings-4.0.4.zip
```

```
mv apache-openmeetings-4.0.4.zip /opt
```

```
.
```

10)

**----- Connector Java MySQL -----**

This file-driver connect OpenMeetings to MySQL. Download and install it:

```
cd /opt
```

(Only one line without space between both)

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.46/mysql-connector-java-5.1.46.jar
```

```
cp mysql-connector-java-5.1.46.jar /opt/red5404/webapps/openmeetings/WEB-INF/lib
```

11)

**----- Script to launch red5-OpenMeetings -----**

We download the script will run red5-OpenMeetings:

```
cd /opt
```

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

...copy it to where must be:

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

...and concede execution permission:

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

If you made the installation in any other path, edit the script and modify the line:

```
RED5_HOME=/opt/red5404
```

...to

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

12)

### ----- Run red5-OpenMeetings -----

Restart MySQL (be connected to Internet):

```
service mysqld restart
```

...and start red5-OpenMeetings (be connected to Internet):

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

...wait about 40 seconds in order red5 can run completely. Then, go with the browser to:

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

...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](#)

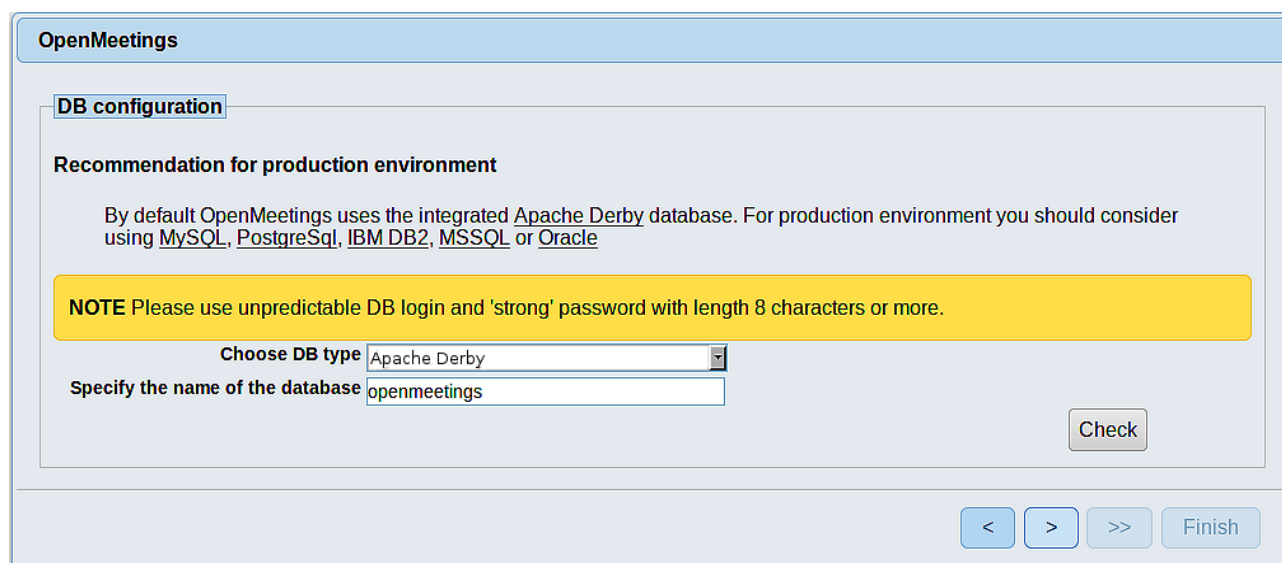
**Commercial-Support:**

[Commercial-Support](#)

< > >> Finish



...press on  (bottom), and will show the default database configuration with Derby, but we employ MySQL:



The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' section. It includes a 'Recommendation for production environment' and a yellow 'NOTE' box. The 'Choose DB type' dropdown is set to 'Apache Derby', and the 'Specify the name of the database' field contains 'openmeetings'. A 'Check' button is visible, along with navigation buttons at the bottom.

**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

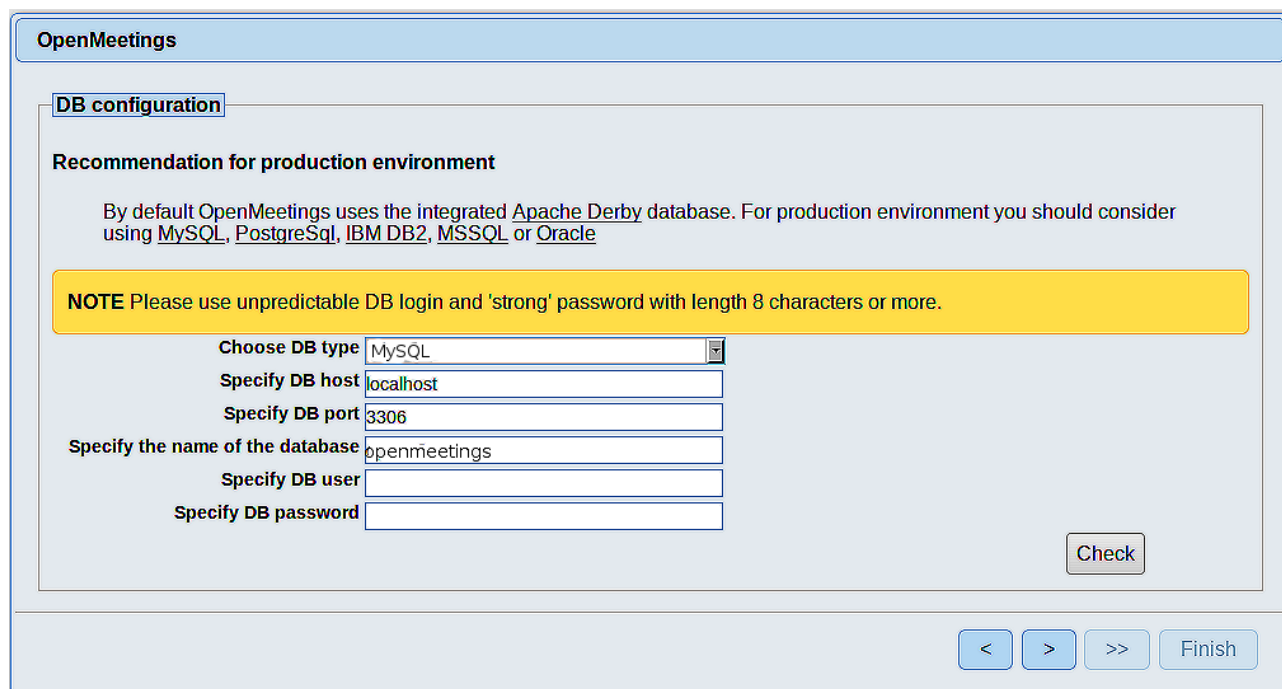
By default OpenMeetings uses the integrated [Apache Derby](#) database. For production environment you should consider using [MySQL](#), [PostgreSQL](#), [IBM DB2](#), [MSSQL](#) or [Oracle](#)

**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, please scroll and **Choose DB type** to MySQL:



The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' section. The 'Choose DB type' dropdown is now set to 'MySQL'. Additional fields for 'Specify DB host', 'Specify DB port', 'Specify the name of the database', 'Specify DB user', and 'Specify DB password' are visible. A 'Check' button is visible, along with navigation buttons at the bottom.

**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


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

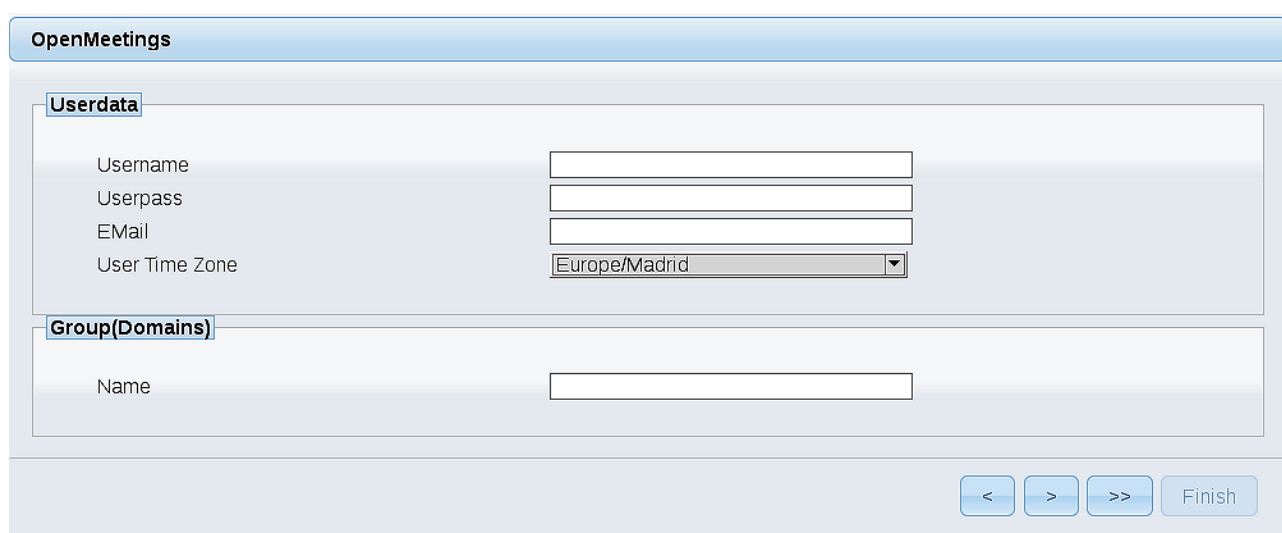
**Specify the name of the database** = open404

**Specify DB user** = hola

**Specify DB password** = 1a2B3c4D

...if you choose a different data, here is where type it.

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 have administrator rights

**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

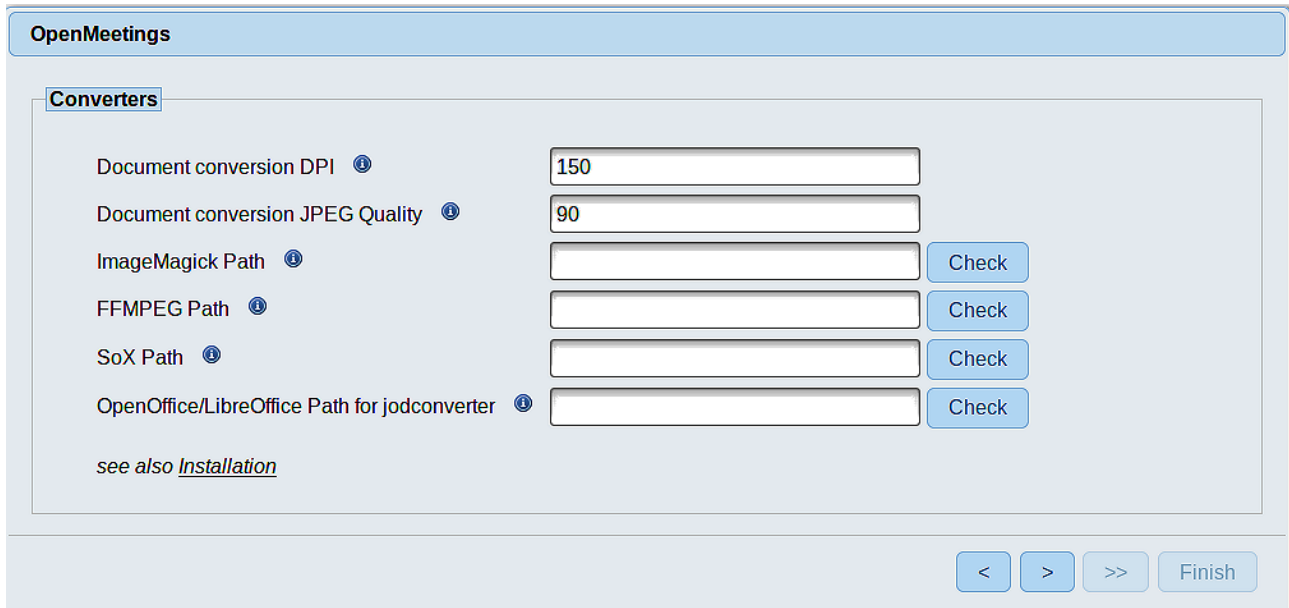
Allow self-registering	<input checked="" type="checkbox"/>	
Send Email to new registered Users	<input type="checkbox"/>	
New Users need to verify their EMail	<input type="checkbox"/>	
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>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

< > >> 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/libreoffice5.4`

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 press 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. The 'red5SIP Configuration' section is active, showing the following settings:

- Crypt Type:** Crypt Class is set to `org.apache.openmeetings.util.crypt.SCr`.
- Enable SIP:** A toggle switch is turned on (red).
- SIP rooms prefix:** Set to `400`.
- SIP extensions context:** Set to `rooms`.

At the bottom right, there are navigation buttons: a left arrow, a right arrow, a double right arrow, and a 'Finish' button.

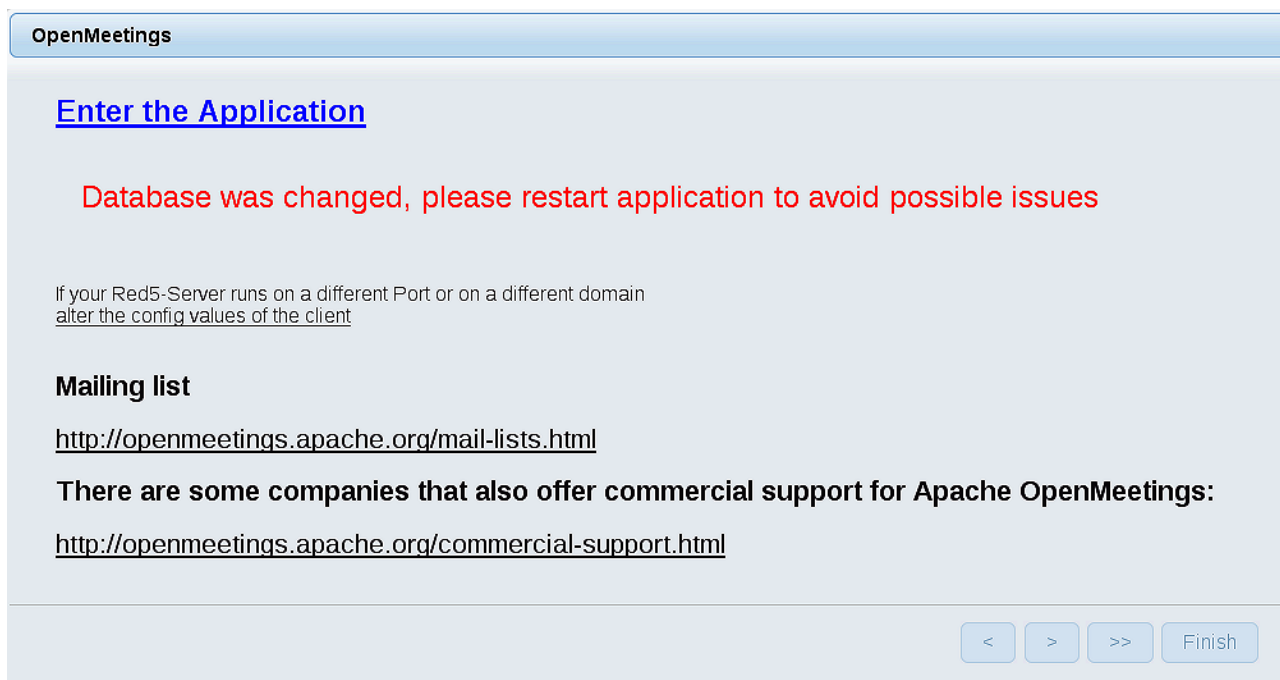
Now push the button  Will show this window:

The screenshot shows the 'OpenMeetings' window with the message: "Please click 'Finish' button to start installation!". Below the message is a large empty text input field. At the bottom right, there are navigation buttons: a left arrow, a right arrow, a double right arrow, and a 'Finish' button.

Press **Finish** button ...wait a seconds until 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 shell window, and run this command (be connected to Internet):

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



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:

The screenshot shows a login form titled "Login". It contains the following elements: a label "Username or mail address" next to a text input field; a label "Password" next to a password input field; a checkbox labeled "Remember login"; a link "Forgotten your password?"; and a link "Network testing". At the bottom, there are two buttons: "Not a member?" and "Sign in".

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 to OpenMeetings will be:

<http://localhost:5080/openmeetings>

Remember to open in the server the two following ports:

**1935 5080**

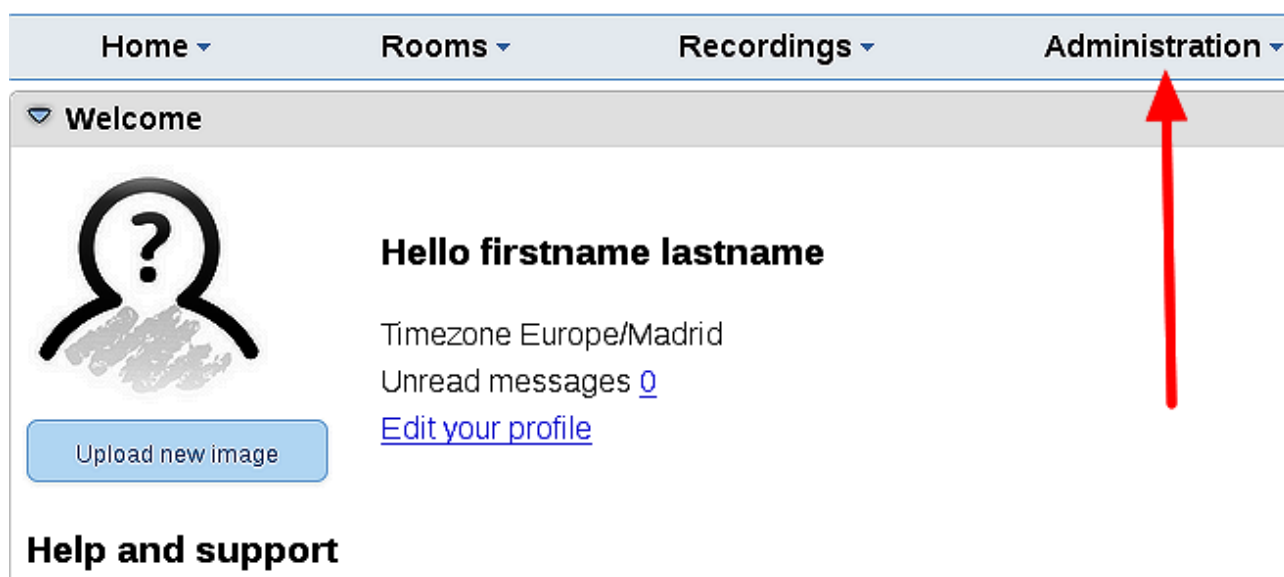
...in order that it could accede to OpenMeetings from other machines, in Lan or Internet.

13)

----- **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:

The screenshot shows the Apache OpenMeetings Administration interface. On the left is a table of configuration items, and on the right is a detailed view for the selected item 'path.ffmpeg'. Three red arrows indicate the sequence of actions: arrow 1 points to the 'path.ffmpeg' row in the table; arrow 2 points to the 'Value' input field in the configuration details; arrow 3 points to the 'Configuration' tab header.

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

And this is all.

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

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



Thank you.

Alvaro Bustos