



## **Installation of Apache OpenMeetings 4.0.6 on Slackware 14.2**

**slackware64-14.2-install-dvd.iso**

This tutorial is based in a fresh installation of Slackware 14.2.

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.6 stable, that is to say will suppress his compilation. It is done step by step.

15-10-2018

Starting...

1)

Update the OS:

`slackpkg update`

`slackpkg upgrade-all`

...and install some packages and libraries:

(Only one line with a space between both)

`slackpkg install nano make libtool bison ghostscript freetype gcc ncurses make bzip2 wget git automake curl autoconf automake cmake mercurial`

2)

## ----- Installation of Slpkg -----

Slpkg is a user-friendly package manager for Slackware installations. Resolves dependencies.

We download and install it:

```
cd /opt
```

```
wget https://github.com/dslackw/slpkg/releases/download/v3.3.4/slpkg-3.3.4-x86_64-1_dsw.txz
```

```
upgradepkg --install-new slpkg-3.3.4-x86_64-1_dsw.txz
```

Configure his repositories uncommenting some ones:

```
nano /etc/slpkg/repositories.conf
```

```
sbo
```

```
slack
```

```
alien
```

```
msb{1.18)    ...this is for Mate desktop.
```

...press **Ctrl+x**, will ask to save, press **Y** and **Enter** to exit.

Update it:

```
slpkg update
```

3)

## ----- Installation of OpenJava 1.8 and Icedtea-web -----

OpenMeetings need Java to work. Download and install OpenJava 1.8:

```
cd /opt
```

```
slpkg -s alien openjdk
```

...will ask:

```
Would you like to continue [y/N]? ...press Y and Enter
```

Install Icedtea-web to access recordings and share desktop in OpenMeetings room:

```
slpkg -s alien icedtea-web
```

...will ask:

```
Would you like to continue [y/N]? ...press Y and Enter
```

Now configure Java Environment JAVA\_HOME:

```
nano /etc/profile
```

...and at bottom file type or copy and paste the green text:

```
JAVA_HOME="/usr/lib64/java"  
CLASSPATH=""  
PATH="$PATH:/usr/lib64/java/bin"  
export JAVA_HOME  
export CLASSPATH  
export PATH
```

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

To take effect immediatily this change, run the following command:

```
source /etc/profile
```

4)

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

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

```
slpkg -s alien libreoffice
```

...will ask:

Would you like to continue [y/N]? ...press **Y** and **Enter**

5)

#### ----- Instalación de Adobe Flash Player -----

Adobe Flash Player, even is need it for webcam and sound in the OpenMeetings rooms.

For Firefox:

```
slpkg -s alien flashplayer-plugin
```

For Chromium:

```
slpkg -s alien chromium-pepperflash-plugin
```

6)

----- **Installation of ImageMagick y Sox** -----

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

```
slackpkg install imagemagick
```

**Sox**, work the sound. We install it:

```
slackpkg install sox
```

7)

----- **Compilation and installation of FFmpeg** -----

FFmpeg work the video. To compile and install it, i've based at this url, with some modifications and updated to 15-10-2018:

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

Download the script that will compile and install ffmpeg:

```
cd /opt
```

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

...concede execution permission:

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

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

```
./ffmpeg-slackware.sh
```

Will spend about 25 minutes. When finish will announce with this text:

**FFmpeg Compilation is Finished!**

FFmpeg will be installed in: /usr/local/bin.

8)

## ----- Installation of MariaDB -----

We'll install the MariaDB data server::

```
slackpkg install mariadb
```

...create a data base need it for MariaDB can run for first time:

```
mysql_install_db --user=mysql
```

Do owner to mysql:

```
chown -R mysql:mysql /var/lib/mysql
```

...concede execution permission to rc.mysql:

```
chmod 755 /etc/rc.d/rc.mysql
```

...and make a link to *mysql.server* to run MariaDB:

```
cd /usr/share/mysql
```

```
cp mysql.server /etc/init.d/mysql
```

....concede execution permission:

```
chmod +x /etc/init.d/mysql
```

Edit and comment out one line, so the 3306 port will be accesible to OpenMeetings:

```
nano /etc/rc.d/rc.mysql
```

...and comment out:

```
SKIP="--skip-networking"
```

...must be so:

```
# SKIP="--skip-networking"
```

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

Run MariaDB:

```
/etc/init.d/mysql start
```

Now give a MariaDB root password.  
Please, change **a-password** by other you like it:

```
mysqladmin -u root password a-password
```

9)

----- Make a data base for OpenMeetings -----

Make a data base for OpenMeetings:

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

...will ask for the password you just choose:

```
MariaDB [(none)]> CREATE DATABASE open406 DEFAULT CHARACTER SET 'utf8';
```

(Only one line with space between both))

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open406.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

...and exit MariaDB:

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

```
* open406 ..... is the name of the data base  
* hola ..... is the user name of this data base  
* 1a2B3c4D ..... is the password of of this user
```

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

Now is need it reboot the machine to take effect the changes we made in the Java Environment configuration. Stop MariaDB:

```
/etc/init.d/mysql stop
```

...and reboot. When comeback follow at the step 10:

```
reboot
```

10)

----- Installation of red5-OpenMeetings -----

We'll install OpenMeetings 4.0.6 stable release.

Make a folder called **red5406** where to download the OpenMeetings file and will install it:

```
mkdir /opt/red5406
```

```
cd /opt/red5406
```

```
wget http://archive.apache.org/dist/openmeetings/4.0.6/bin/apache-openmeetings-4.0.6.zip
```

```
unzip apache-openmeetings-4.0.6.zip
```

```
mv apache-openmeetings-4.0.6.zip /opt
```

11)

----- **Connector between OpenMeetings and MariaDB** -----

This file-driver is need it to connect OpenMeetings to MariaDB. 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/red5406/webapps/openmeetings/WEB-INF/lib
```

12)

----- **Script to run red5-OpenMeetings** -----

Download the script that 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 different path to /opt/red5406, please edit the script and modify the line:

```
RED5_HOME=/opt/red5406
```

...a

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

13)

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

Run MariaDB:

```
/etc/init.d/mysql start
```

...and now run red5-OpenMeetings:

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

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

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

...there will show 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](#)

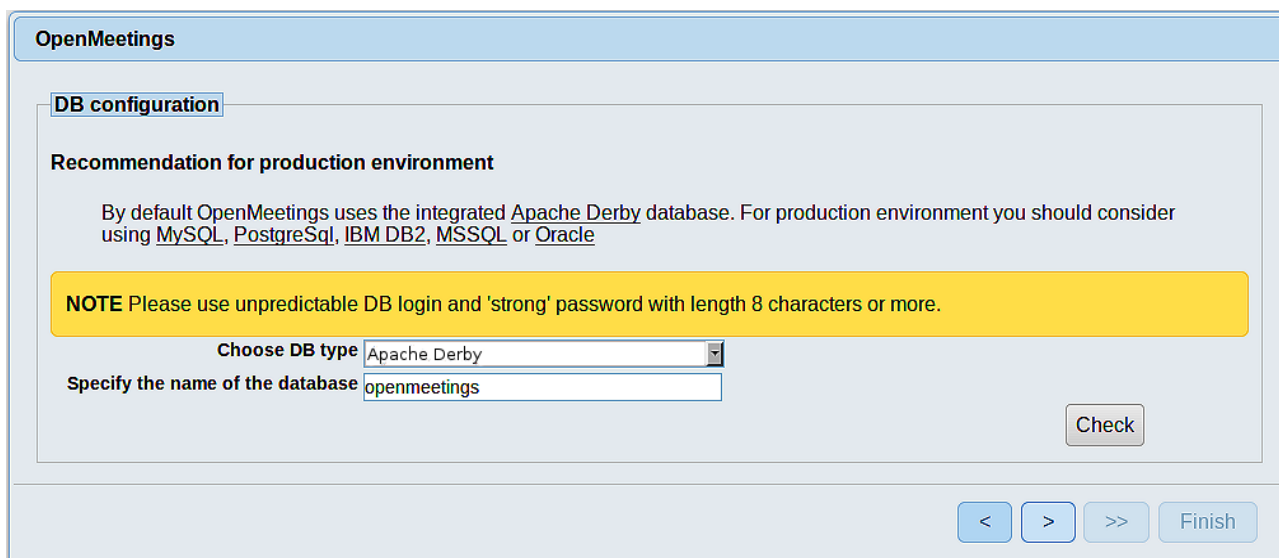
**Commercial-Support:**

[Commercial-Support](#)

< > >> Finish



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



The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' tab selected. It includes a recommendation for a production environment, a note about using strong passwords, and a form where 'Apache Derby' is selected as the database type and 'openmeetings' is entered as the database name. A 'Check' button is visible, along with navigation arrows and a 'Finish' button at the bottom.

**OpenMeetings**

**DB configuration**

**Recommendation for production environment**

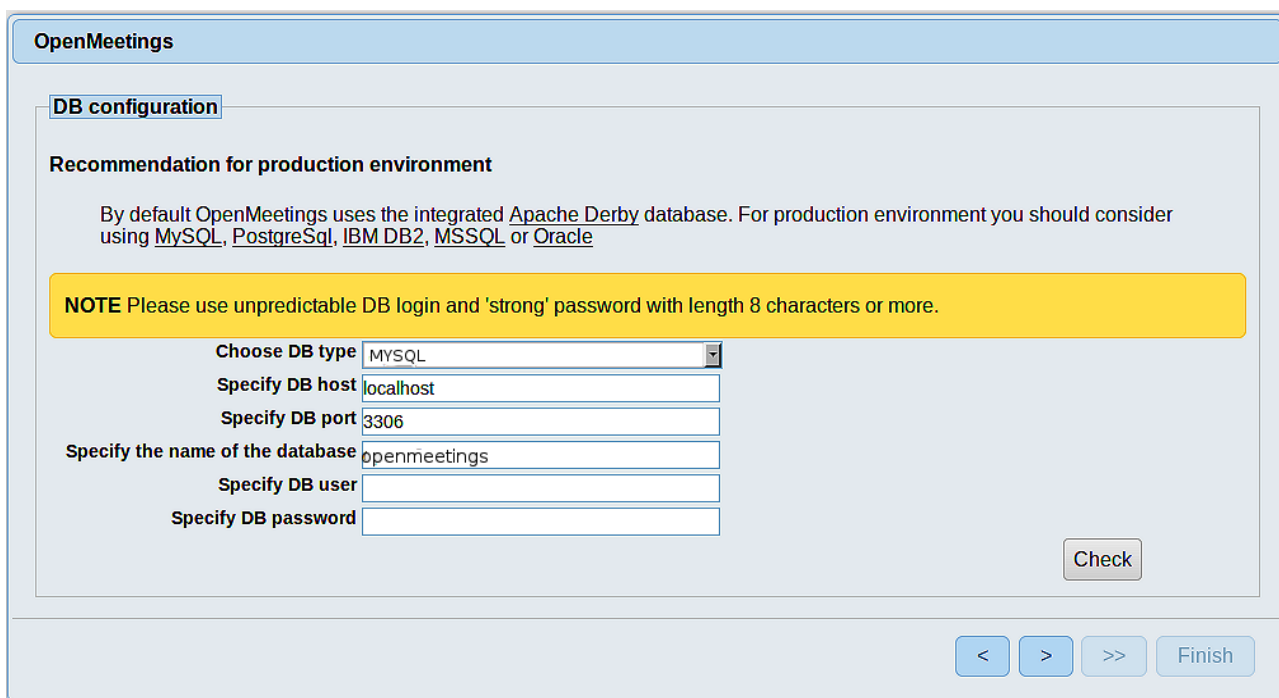
By default OpenMeetings uses the integrated [Apache Derby](#) database. For production environment you should consider using [MySQL](#), [PostgreSQL](#), [IBM DB2](#), [MSSQL](#) or [Oracle](#)

**NOTE** Please use unpredictable DB login and 'strong' password with length 8 characters or more.

Choose DB type

Specify the name of the database

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



The screenshot shows the 'OpenMeetings' application window with the 'DB configuration' tab selected. 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 present, along with navigation arrows and a 'Finish' button 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

...here we must introduce the data base name, user name and his password that we gives in step 9:

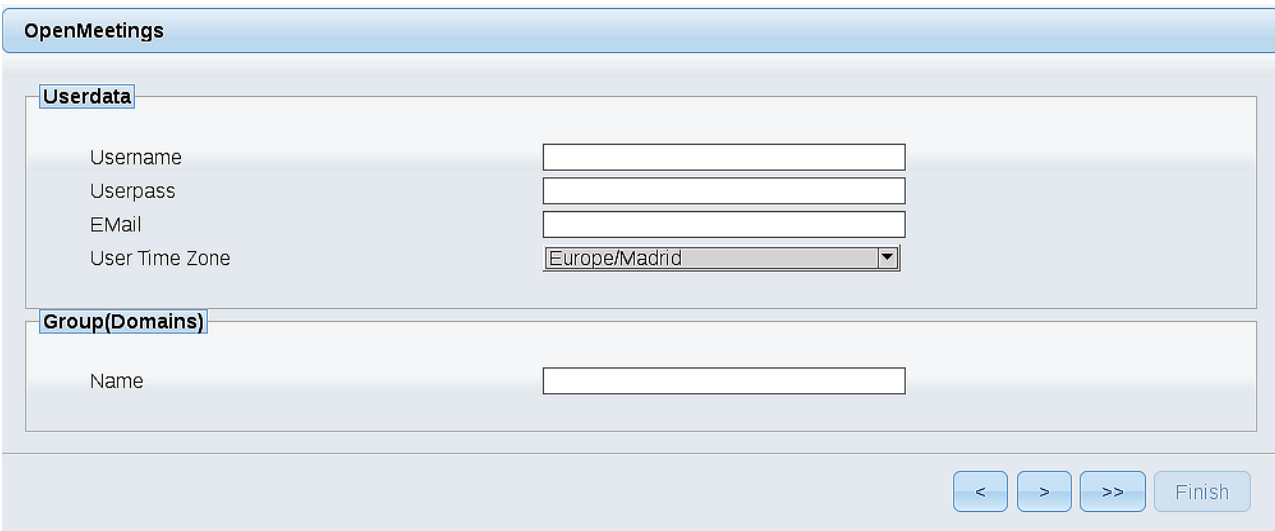
**Specify the name of the database** = open406

**Specify DB user** = hola

**Specify DB password** = 1a2B3c4D

If you had choose diferents data, please introduce it here:

Press th button  and will take us to:



Now, 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 name 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 MailServer 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.

Please press the button  and a new page will appear:

**OpenMeetings**

**Converters**

Document conversion DPI ⓘ	<input type="text" value="150"/>	
Document conversion JPEG Quality ⓘ	<input type="text" value="90"/>	
ImageMagick Path ⓘ	<input type="text"/>	<input type="button" value="Check"/>
FFMPEG Path ⓘ	<input type="text"/>	<input type="button" value="Check"/>
SoX Path ⓘ	<input type="text"/>	<input type="button" value="Check"/>
OpenOffice/LibreOffice Path for jodconverter ⓘ	<input type="text"/>	<input type="button" value="Check"/>

*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/lib64/libreoffice](#)

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.

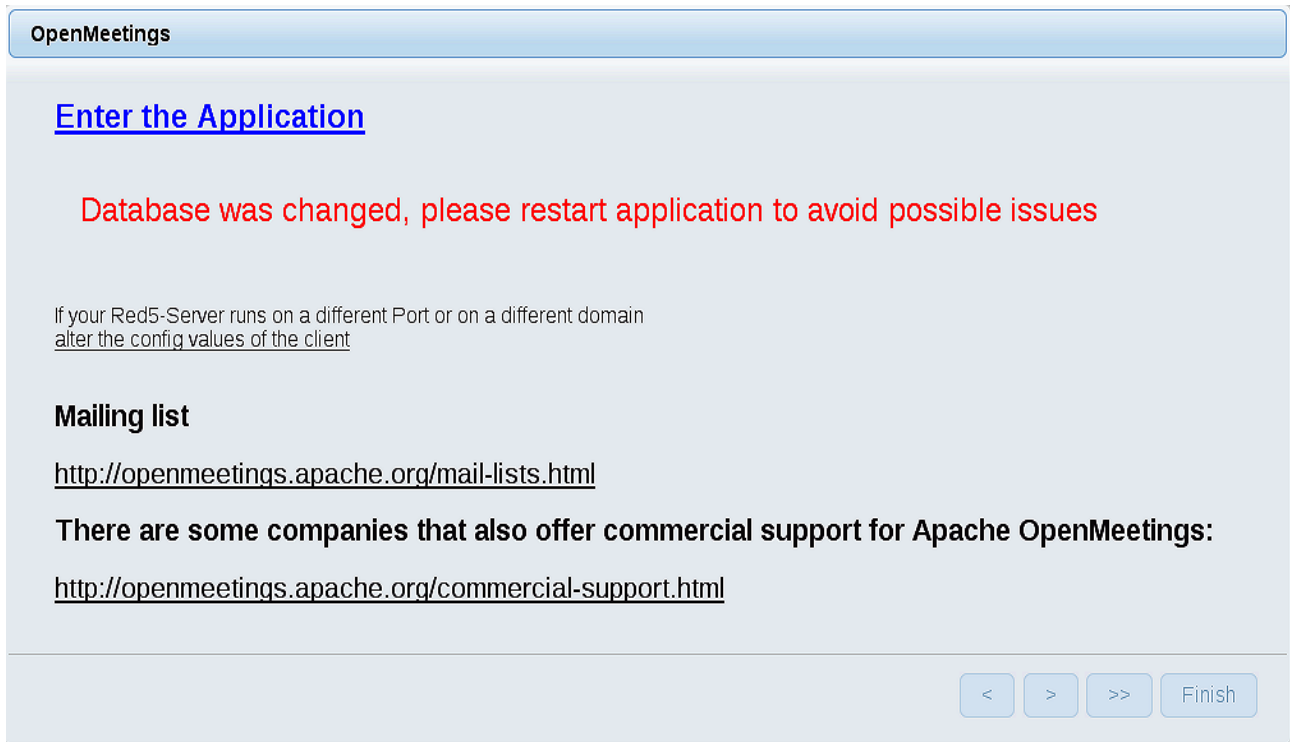
Once completed the paths, please click the button  and move on to another page that would be to activate the SIP. We will leave it as is, unless you want to activate it knowing what it does:

Press the button  and will show this window:

Push **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:

[/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 with a light blue header bar. The form contains the following elements: "Username or mail address" with a text input field; "Password" with a text input field; a checkbox labeled "Remember login"; a link "Forgotten your password?"; and a link "Network testing". At the bottom of the form, 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 accede to OpenMeetings, would be

<http://localhost:5080/openmeetings>

Remember to open in the server, the two following ports:

**1935 5080**

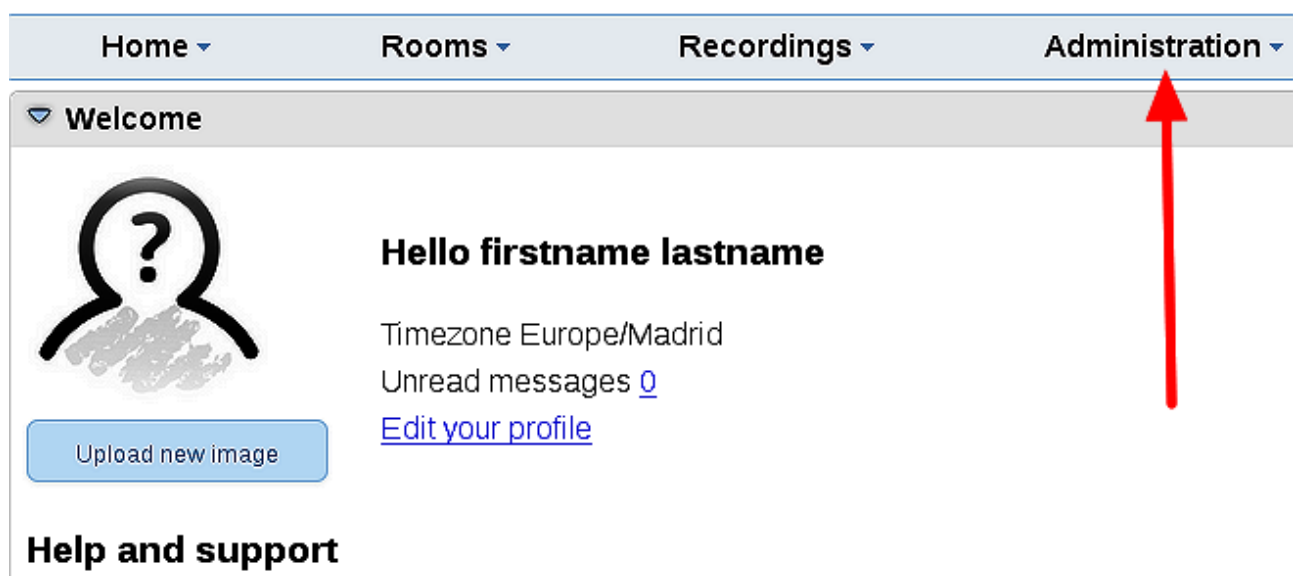
...in order that it could accede to OpenMeetings from other machines in Lan or from Internet

14)

----- **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 Administration section of the OpenMeetings web interface. On the left is a table of configuration items, and on the right is a configuration form for the selected item. Three red arrows indicate the sequence of actions:

- Arrow 1 points from the 'path.ffmpeg' row in the table to the 'Key' field in the form.
- Arrow 2 points from the 'Value' field in the form to the 'path.ffmpeg' row in the table.
- Arrow 3 points from the 'Configuration' form title to the 'Type' dropdown menu.

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

15)

----- Ghostscript compilation and modify ImageMagick -----

By a script we should compile Ghostscript 9.25, free of security hole:

```
cd /opt
```

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

```
chmod +x ghostscript.sh
```

...and run it:

```
./ghostscript.sh
```

...when be finished will announce it: **GhostScript compilation is Finished!**

```
rm -R /opt/ghostscript-9.25
```



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

[nano /etc/ImageMagick-6/policy.xml](#)

...and comment out the two follow 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.

And this is all.

-----

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

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



Thank you.

Alvaro Bustos