



Installation of Apache OpenMeetings 4.0.8 on Slackware 14.2

slackware64-14.2-install-dvd.iso

The present 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 4.0.8 stable, that is to say will suppress his compilation. It is done step by step.

8-3-2019

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 immediatly 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 audio 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 8-3-2019:

<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 open408 DEFAULT CHARACTER SET 'utf8';
```

(Only one line with space between both))

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open408.* TO 'hola'@'localhost'  
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

...and exit MariaDB:

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

- * **open408** 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 4.0.8 stable release.

Make a folder called **red5408** where to download the OpenMeetings file and will install it:

```
mkdir /opt/red5408
```

```
cd /opt/red5408
```

```
wget http://archive.apache.org/dist/openmeetings/4.0.8/bin/apache-openmeetings-4.0.8.zip
```

```
unzip apache-openmeetings-4.0.8.zip
```

```
mv apache-openmeetings-4.0.8.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/5.1.47/mysql-connector-java-5.1.47.jar
```

```
cp mysql-connector-java-5.1.47.jar /opt/red5408/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/red5408, please edit the script and modify the line:

```
RED5_HOME=/opt/red5408
```

...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:

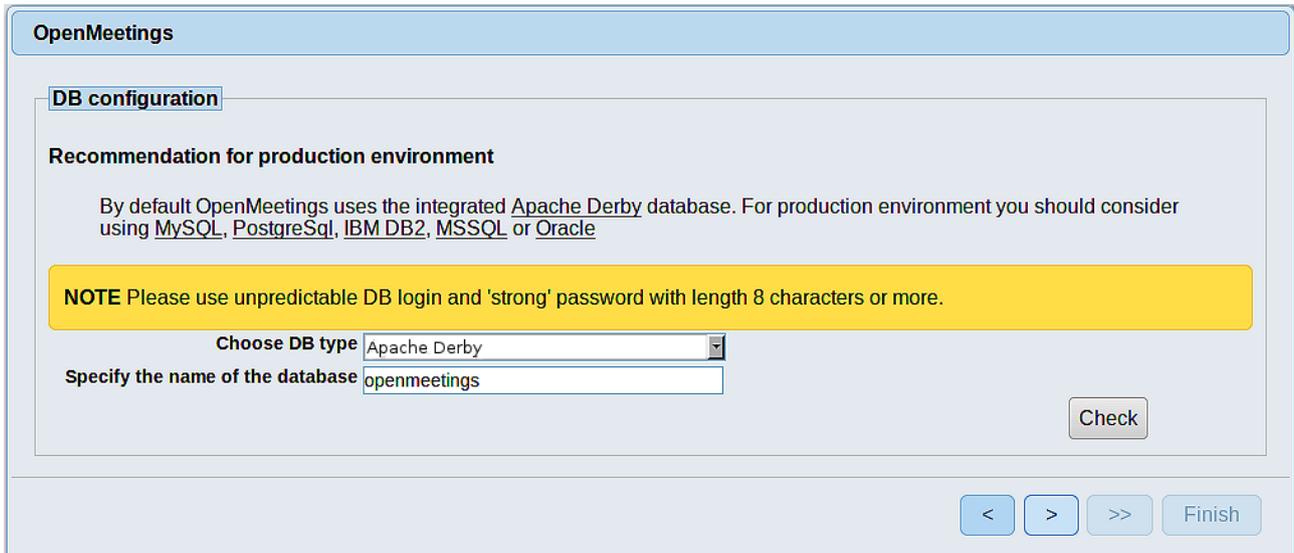
[Mailing lists](#)

Commercial-Support:

[Commercial-Support](#)

< > >> Finish

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



OpenMeetings

DB configuration

Recommendation for production environment

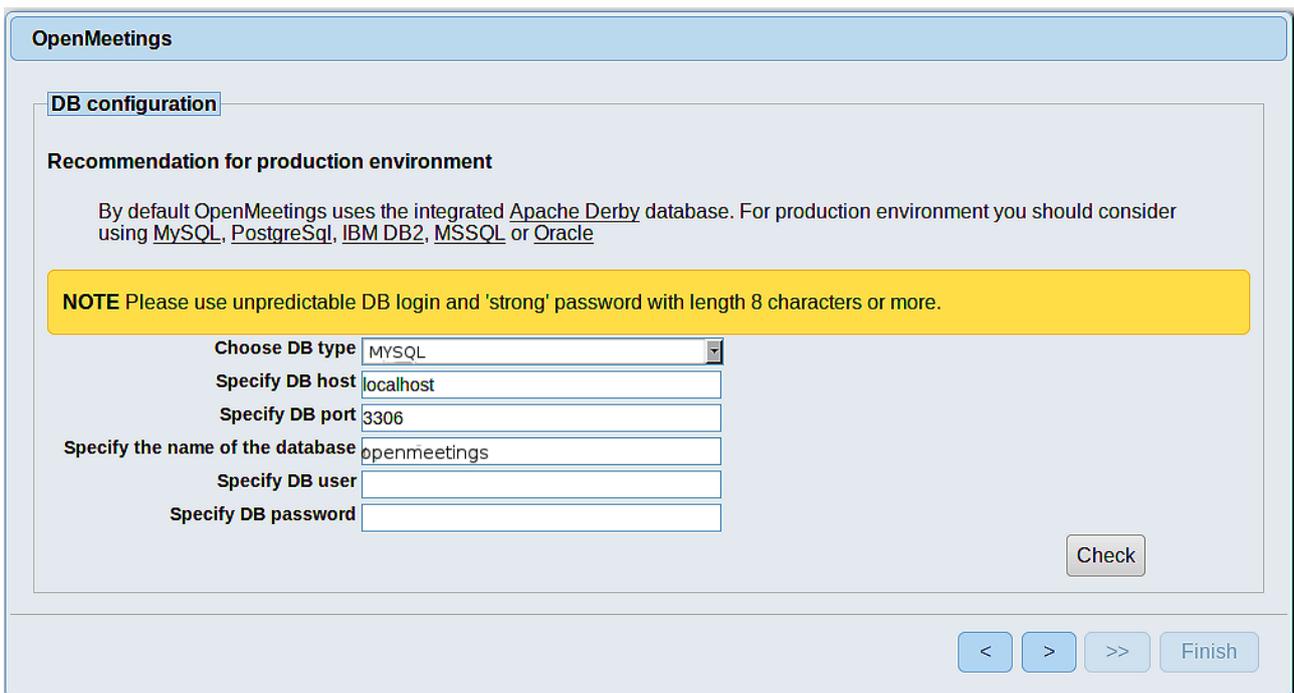
By default OpenMeetings uses the integrated [Apache Derby](#) database. For production environment you should consider using [MySQL](#), [PostgreSQL](#), [IBM DB2](#), [MSSQL](#) or [Oracle](#)

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:



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:

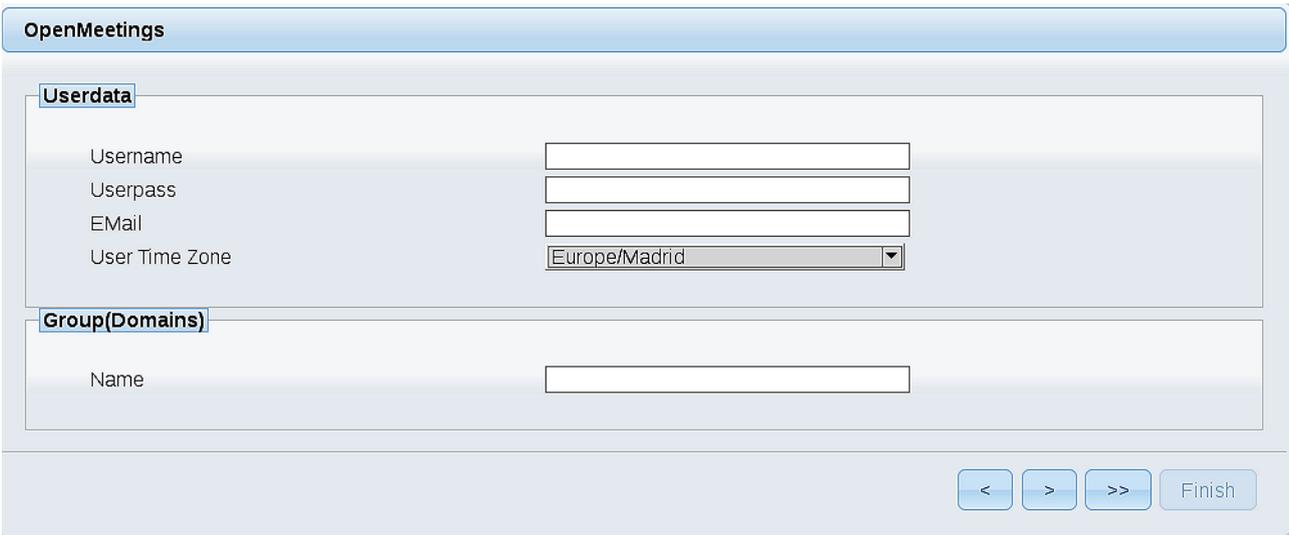
Specify the name of the database = open408

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-passwordfor 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)

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 MailServer Auth == ...turn green the button to activate

Default Language == ...select your language

...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:

The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a light blue header. Below the header, there are two main sections:

- Crypt Type**: A section with a sub-header 'Crypt Type'. It contains a label 'Crypt Class' with a help icon, and a text input field containing the value 'org.apache.openmeetings.util.crypt.SCr'.
- red5SIP Configuration**: A section with a sub-header 'red5SIP Configuration'. It contains three items:
 - 'Enable SIP' with a help icon and a red toggle switch.
 - 'SIP rooms prefix' with a help icon and a text input field containing '400'.
 - 'SIP extensions context' with a help icon and a text input field containing 'rooms'.

At the bottom right of the window, there are four buttons: '<', '>', '>>', and 'Finish'.

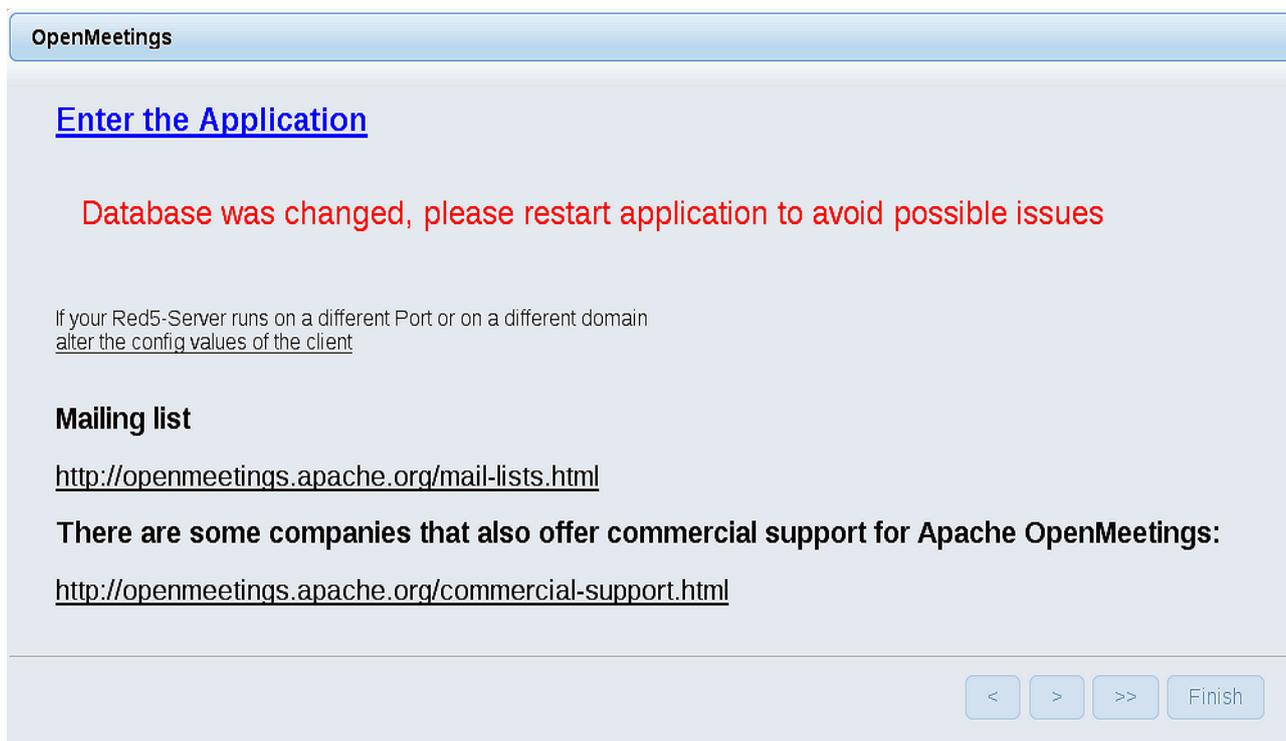
Press the button  and will show this window:

The screenshot shows the 'OpenMeetings' window after clicking the next button. The title bar is 'OpenMeetings'. The main content area contains the text 'Please click "Finish" button to start installation!' and a large empty text input field. At the bottom right, there are four buttons: '<', '>', '>>', and 'Finish'.

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 the "Login" page of the OpenMeetings application. It features a light blue header with the word "Login". Below the header, there are two input fields: "Username or mail address" and "Password". To the right of the "Password" field is a checkbox labeled "Remember login". Below the input fields, there are two links: "Forgotten your password?" and "Network testing". At the bottom of the page, 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

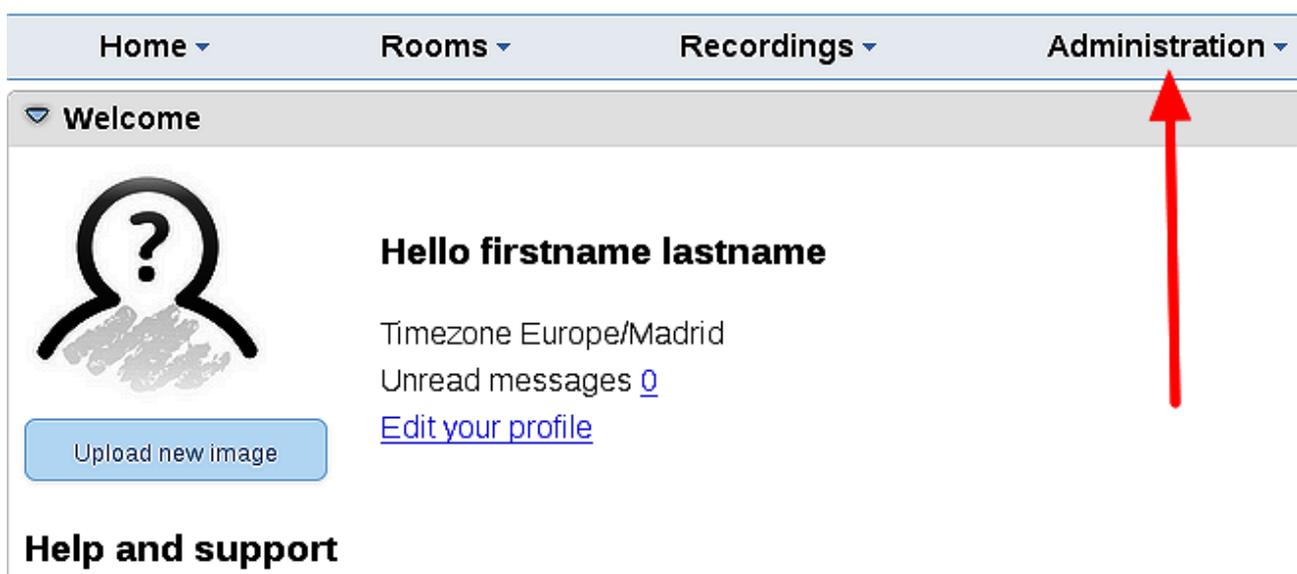
...in order that it could accede to OpenMeetings from other machines in Lan or from Internet

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 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 configuration form; arrow 2 points from the 'Value' field in the form back to the table; arrow 3 points from the 'Configuration' form title back to the table.

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 Form:

- 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 9.26, 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-9.26
```

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.

This last must be repeated every time you update the system-ImageMagick.

If you have some doubt or question, please expose it in 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 download:

[Download](#)

Thank you.

Alvaro Bustos