Installation of Apache OpenMeetings 3.0.x on CentOS 6.5

This tutorial is made based on fresh installations of

CentOS-6.5-i386-LiveCD and **CentOS-6.5-x86_64-LiveCD**

It is tested in both versions with positive result. We will use the Apache's binary version OpenMeetings 3.0.4, that is to say will suppress his compilation. It is done step by step.

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Starting...

1)

– Add repository --

Install epel and linuxtech repository, the last one it is to install vlc.

For CentOS 6.x **32 bits**:

cd /opt

wget http://dl.fedoraproject.org/pub/epel/6/i386/epel-release-6-8.noarch.rpm

rpm -Uvh epel-release-6-8.noarch.rpm

For CentOS 6.x **64 bits**:

cd /opt

wget http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm

rpm -Uvh epel-release-6-8.noarch.rpm

cd /opt

wget http://pkgrepo.linuxtech.net/el6/release/linuxtech.repo

cp linuxtech.repo /etc/yum.repos.d

Update the repository and the operative system:

yum update

...installation of vlc to play video:

yum install -y vlc

...installs automatically many libraries of media.

.

2)

---- Installation of libraries for compilations and packages ----

Copy line to line and them put one after other one in the shell.

yum install -y libjpeg libjpeg-devel giflib giflib-devel giflib-utils ghostscript freetype freetype-devel unzip gcc ncurses ncurses-devel make gcc-c++ libtermcap libtermcap-devel zlib zlib-devel libtool bison bison-devel openssl-devel bzip2 bzip2-devel wget ImageMagick file-roller unzip zlib zlib-devel

---- Installation and configuration of MySQL ----

yum install -y mysql mysql-server

Give a root password in MySQL substituting 'new-password' that we have just chosen:

service mysqld start

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

Build the database for OpenMeetings:

mysql -p -u root

...will ask for the root password that we have just chosen, type it...

mysql> CREATE DATABASE open304 DEFAULT CHARACTER SET 'utf8';

With this command we have created a called database open304 though you can choose another name to your whish.
Now we create a user with all the permissions for this database.
Type the following command everything in an alone line with space of separation between both:

mysql> GRANT ALL PRIVILEGES ON open304.* TO 'openmeetings'@'localhost' IDENTIFIED BY '123456' WITH GRANT OPTION;

* open304 .....is the database name.
* openmeetings ...is the user name for the database.
* 123456 ….....is the password of the user called openmeetings.

You can change the dates...but remember it!

We go out from MySQL console:

mysql> quit

3)

---- Installation of Adobe flash player----

Go to:

http://get.adobe.com/flashplayer/

Once there:

Select version to download... → .rpm for other Linux --> Download now

can install the unloaded file doing right click on him and "Open with Package Installer".

4)

---- Installation of LibreOffice ----

Install now LibreOffice...if it is that you do not have it even installed, for the conversion of files.
Copy line to line and them put one after other one in the shell:

yum -y install libreoffice libreoffice-base libreoffice-core libreoffice-draw libreoffice-headless libreoffice-impress libreoffice-writer

Now some kind of information only:

LibreOffice **32 bits** establishes himself in **/usr/lib/libreoffice**.
LibreOffice **64 bits** establishes himself in **/usr/lib64/libreoffice**.

5)

---- Installation of Oracle Java 1.8 ----

For **32 bits**:

Please visit:

http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html?ssSourceSiteId=otnes

...clic on:

Agree and proceed

...mark:

Accept License Agreement

...and download the file called:

jdk-8u31-linux-i586.rpm

Now go in shell where the file it was downloaded. For example:

cd /home/your_user_name

...and install it:

rpm -Uvh jdk-8u31-linux-i586.rpm

...and remove the file:

rm -f jdk-8u31-linux-i586.rpm

For **64 bits**:

Please visit:

http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html?ssSourceSiteId=otnes

...clic on:

Agree and proceed

...mark:

Accept License Agreement

...and download the file called:

jdk-8u31-linux-x64.rpm

Go in shell where the file it was downloaded. For example:

cd /home/your_user_name

...and install it:

rpm -Uvh jdk-8u31-linux-x64.rpm

Environment JAVA_HOME for **32** bits and **64** bits:

gedit /etc/profile

...at the end of the file add:

export JAVA_HOME=/usr/java/jdk1.8.0_31/bin/java
export PATH=$PATH:/usr/java/jdk1.8.0_31/bin

...Attention, the number of the version changes if you have unloaded different other one...

...and now activate it:

source /etc/profile

For **32** and **64** bits: line to line...

update-alternatives --install /usr/bin/java java /usr/java/jdk1.8.0_31/jre/bin/java 20000

update-alternatives --install /usr/bin/jar jar /usr/java/jdk1.8.0_31/bin/jar 20000

update-alternatives --install /usr/bin/javac javac /usr/java/jdk1.8.0_31/bin/javac 20000

update-alternatives --install /usr/bin/javaws javaws /usr/java/jdk1.8.0_31/jre/bin/javaws 20000

...Attention, the number of the version changes if you have unloaded different other one...

update-alternatives --config javac
update-alternatives --config java ...select the number of /usr/java/jdk1.8.0_31/bin/java
update-alternatives --config javaws

6)

---- Compilation of Sox and Swftools ----

Compile **Sox** for audio.

cd /opt

wget http://sourceforge.net/projects/sox/files/sox/14.4.1/sox-14.4.1.tar.gz/download

tar xzvf sox-14.4.1.tar.gz

cd /opt/sox-14.4.1

./configure --enable-libmp3lame

make && make install

Compile **Swftools** to flash convertion.

cd /opt

wget http://www.swftools.org/swftools-2013-04-09-1007.tar.gz

tar xzvf swftools-2013-04-09-1007.tar.gz

cd /opt/swftools-2013-04-09-1007

./configure --libdir=/usr/lib --bindir=/usr/bin

make && make install

7)

---- Compilation of FFmpeg ----

Ffmpeg will work for video.

This compilation is based on:

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

...with little modifications.

Should install some package and libraries:

yum install autoconf automake gcc gcc-c++ git libtool make nasm pkgconfig zlib-devel

Make a folder where download the sources:

mkdir ~/ffmpeg_sources

First will download all the packages we need to compile. In shell as root:

git clone --depth 1 git://github.com/yasm/yasm.git

git clone --depth 1 git://git.videolan.org/x264

git clone --depth 1 git://git.code.sf.net/p/opencore-amr/fdk-aac

curl -L -O http://downloads.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz

git clone git://git.opus-codec.org/opus.git

curl -O http://downloads.xiph.org/releases/ogg/libogg-1.3.2.tar.gz

curl -O http://downloads.xiph.org/releases/vorbis/libvorbis-1.3.4.tar.gz

git clone --depth 1 https://chromium.googlesource.com/webm/libvpx.git

curl -O http://downloads.xiph.org/releases/theora/libtheora-1.1.1.tar.gz

git clone --depth 1 git://source.ffmpeg.org/ffmpeg

...once all these packages-files are downloaded start the compilation.

1) **---- YASM ---**

cd ~/ffmpeg_sources

cd yasm

autoreconf -fiv

./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin"

make

make install

make distclean

2) **---- libx264 ---**

cd ~/ffmpeg_sources

cd x264

./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin" --enable-static

make

make install

make distclean

3) **--- libfdk_aac ---**

cd ~/ffmpeg_sources

cd fdk-aac

autoreconf -fiv

./configure --prefix="$HOME/ffmpeg_build" --disable-shared

make

make install

make distclean

4) **--- libmp3lame ---**

cd ~/ffmpeg_sources

tar xzvf lame-3.99.5.tar.gz

cd lame-3.99.5

(In only one line)

./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin" --disable-shared --enable-nasm

make

make install

make distclean

5) --- **libopus** ---

cd ~/ffmpeg_sources

cd opus

autoreconf -fiv

./configure --prefix="$HOME/ffmpeg_build" --disable-shared

make

make install

make distclean

6) --- **libogg** ---

cd ~/ffmpeg_sources

tar xzvf libogg-1.3.2.tar.gz

cd libogg-1.3.2

./configure --prefix="$HOME/ffmpeg_build" --disable-shared

make

make install

make distclean

7) --- **libvorbis** ---

cd ~/ffmpeg_sources

tar xzvf libvorbis-1.3.4.tar.gz

cd libvorbis-1.3.4

./configure --prefix="$HOME/ffmpeg_build" --with-ogg="$HOME/ffmpeg_build" --disable-shared

make

make install

make distclean

8) **--- libvpx ---**

cd ~/ffmpeg_sources

cd libvpx

./configure --prefix="$HOME/ffmpeg_build" --disable-examples

make

make install

make clean

9) **--- libtheora ---**

cd ~/ffmpeg_sources

tar xzvf libtheora-1.1.1.tar.gz

cd libtheora-1.1.1

(In only one line)

./configure --prefix="$HOME/ffmpeg_build" --with-ogg="$HOME/ffmpeg_build" --disable-examples --disable-shared --disable-sdltest --disable-vorbistest

make

make install

make distclean

10) **--- FFmpeg ---**

cd ~/ffmpeg_sources

cd ffmpeg

(In only one line)

PKG_CONFIG_PATH="$HOME/ffmpeg_build/lib/pkgconfig" ./configure --prefix="$HOME/ffmpeg_build" --extra-cflags="-I$HOME/ffmpeg_build/include" --extra-ldflags="-L$HOME/ffmpeg_build/lib" --bindir="$HOME/bin" --enable-gpl --enable-nonfree --enable-libfdk_aac --enable-libmp3lame --enable-libopus --enable-libvorbis --enable-libvpx --enable-libx264 --enable-libtheora

make

make install

make distclean

hash -r

The compilation is finished.

Now we have the compiled files in: ~/bin

Should copy all them to /usr/local/bin to be enabled:

cd ~/bin

cp ffmpeg ffprobe ffserver lame vsyasm x264 yasm ytasm /usr/local/bin

7)

Type the name of your machine in:

gedit /etc/hosts

...for example:

127.0.0.1 localhost.localdomain localhost your-machine
::1 localhost6.localdomain6 localhost6
your-ip-local your-machine

8)

Install for the convertion **Jodconverter.**

cd /opt

wget http://jodconverter.googlecode.com/files/jodconverter-core-3.0-beta-4-dist.zip

unzip jodconverter-core-3.0-beta-4-dist.zip

9)

---- Installation of OpenMeetings ----

We´ll install OpenMeetings in /opt/red5304. All the following information will be based on this directory.

Call to our folder of installation **red5304**

Make the folder:

mkdir /opt/red5304

cd /opt/red5304

wget http://apache.rediris.es/openmeetings/3.0.4/bin/apache-openmeetings-3.0.4.zip

unzip apache-openmeetings-3.0.4.zip

...remove the unloaded file:

rm -f apache-openmeetings-3.0.4.zip

Do to **nobody** user of the whole OpenMeetings folder installation:

chown -R nobody /opt/red5304

Unload and install the connector between OpenMeetings and MySQL:

cd /opt

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.29/mysql-connector-java-5.1.29.jar

...and copy it to where it must be:

cp /opt/mysql-connector-java-5.1.29.jar /opt/red5304/webapps/openmeetings/WEB-INF/lib

Now we are going to form OpenMeetings for our database in MySQL:

cd /opt/red5304/webapps/openmeetings/WEB-INF/classes/META-INF

mv persistence.xml persistence.xml-ori

mv mysql_persistence.xml persistence.xml

gedit /opt/red5304/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

...to change on **line 81**

, Url=jdbc:mysql://localhost:3306/openmeetings

...to

, Url=jdbc:mysql://localhost:3306/open304

...it is the name of the database that we did initially.

... to change on **line 86**

, Username=root

...to

, Username=openmeetings

...is the user that we did initially for the database.

...to change on **line 87**

, Password=" />

...to

, Password=123456" />

...it is the password that we did initially for the user "openmeetings" in the database.
Logically if initially you chose another name and password for the database, you will to change them here.

We protect the access to the file:

chmod 640 /opt/red5304/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

11)

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

Do a script of start and stop for red5-OpenMeetings that we will call "**red5**"

gedit /etc/init.d/red5

...copy, paste and save the whole green text of below:

```
#!/bin/bash
# For RedHat and cousins:
# chkconfig: 2345 85 85
# description: Red5 flash streaming server
# processname: red5
# Created By: Sohail Riaz (sohaileo@gmail.com)

PROG=red5
RED5_HOME=/opt/red5304
DAEMON=$RED5_HOME/$PROG.sh
PIDFILE=/var/run/$PROG.pid

# Source function library
. /etc/rc.d/init.d/functions

[ -r /etc/sysconfig/red5 ] && . /etc/sysconfig/red5

RETVAL=0

case "$1" in
        start)
 echo -n $"Starting $PROG: "
 cd $RED5_HOME
 $DAEMON >/dev/null 2>/dev/null &
 RETVAL=$?
 if [ $RETVAL -eq 0 ]; then
 echo $! > $PIDFILE
 touch /var/lock/subsys/$PROG
 fi
 [ $RETVAL -eq 0 ] && success $"$PROG startup" || failure $"$PROG startup"
 echo
 ;;
 stop)
 echo -n $"Shutting down $PROG: "
 killproc -p $PIDFILE
 RETVAL=$?
 echo
```

```
        [ $RETVAL -eq 0 ] && rm -f /var/lock/subsys/$PROG
        ;;
        restart)
        $0 stop
        $0 start
        ;;
        status)
        status $PROG -p $PIDFILE
        RETVAL=$?
        ;;
        *)
        echo $"Usage: $0 {start|stop|restart|status}"
        RETVAL=1
esac

exit $RETVAL
```

12)

Give permission of execution to the script newly made:

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

13)

Start MySql if still it is not:

```
service mysqld start
```

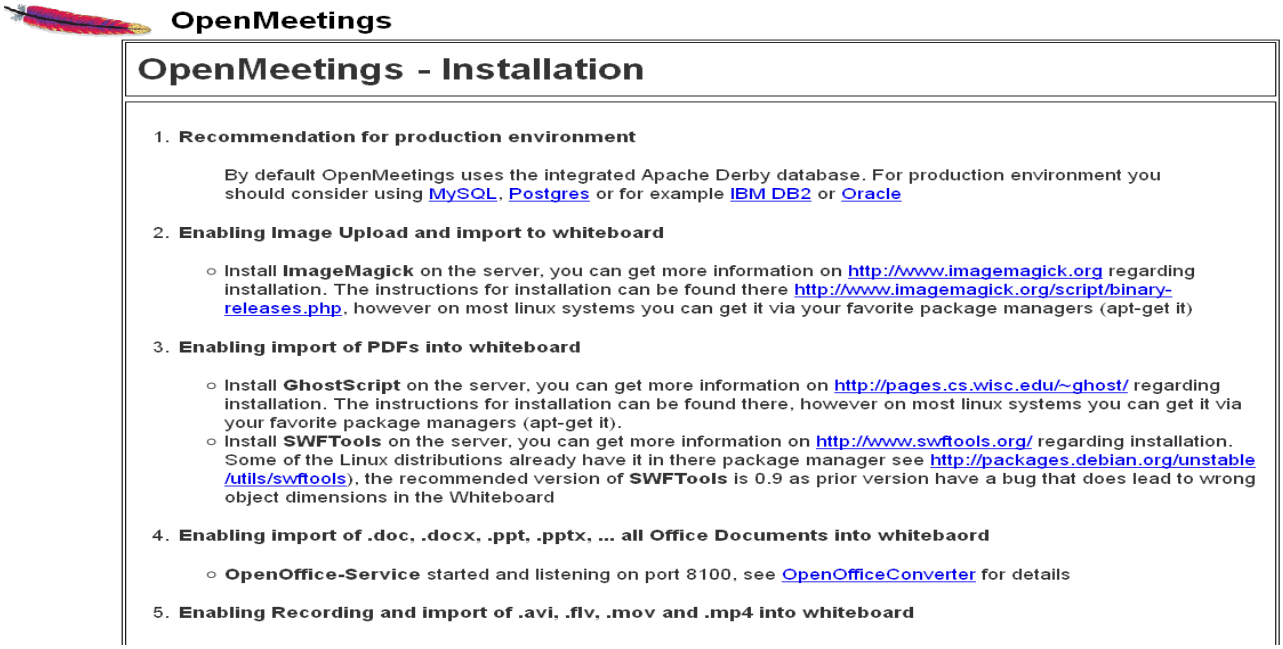
...and now we start red5-OpenMeeting:

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

...wait 10 seconds ***at least*** in order that red5 it is run completely, and later go to:

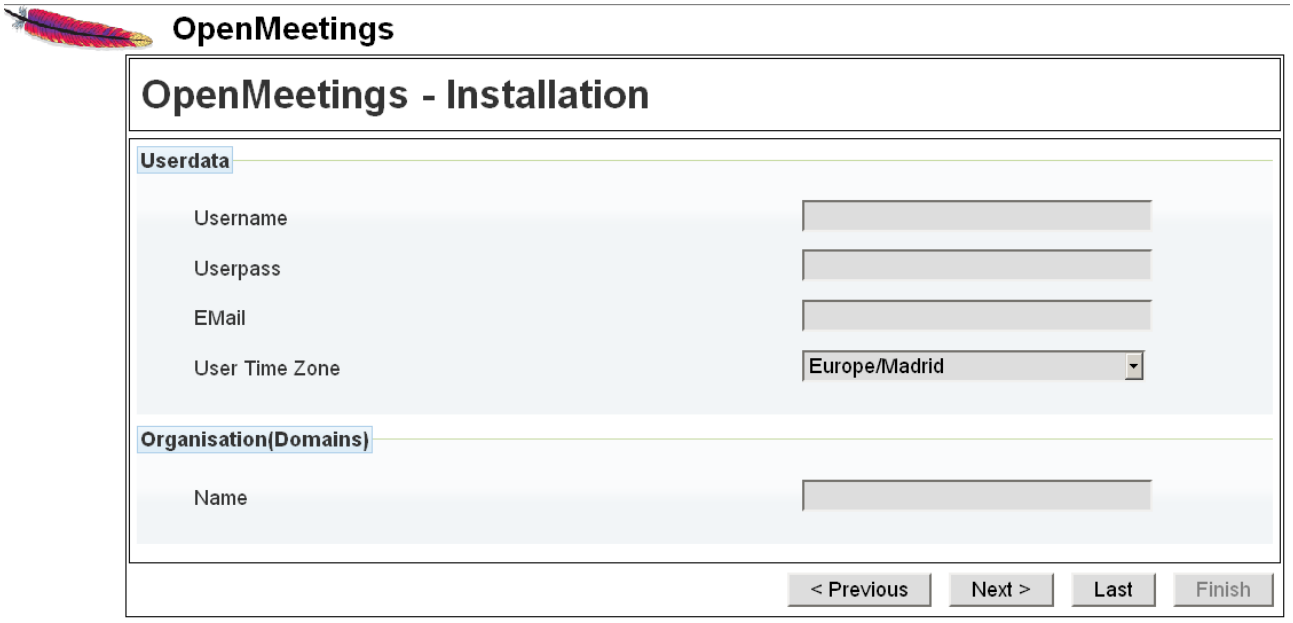
http://localhost:5080/openmeetings/install

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



...clic on **Next** (bottom)

...and this another page will appear:



...here we have to introduce necessarily, to be able to continue, the following:

Username = a-name ...this user will be administrator.

Userpass = password ...for the previous user.

Email = **email-adress** ...of the previous user.

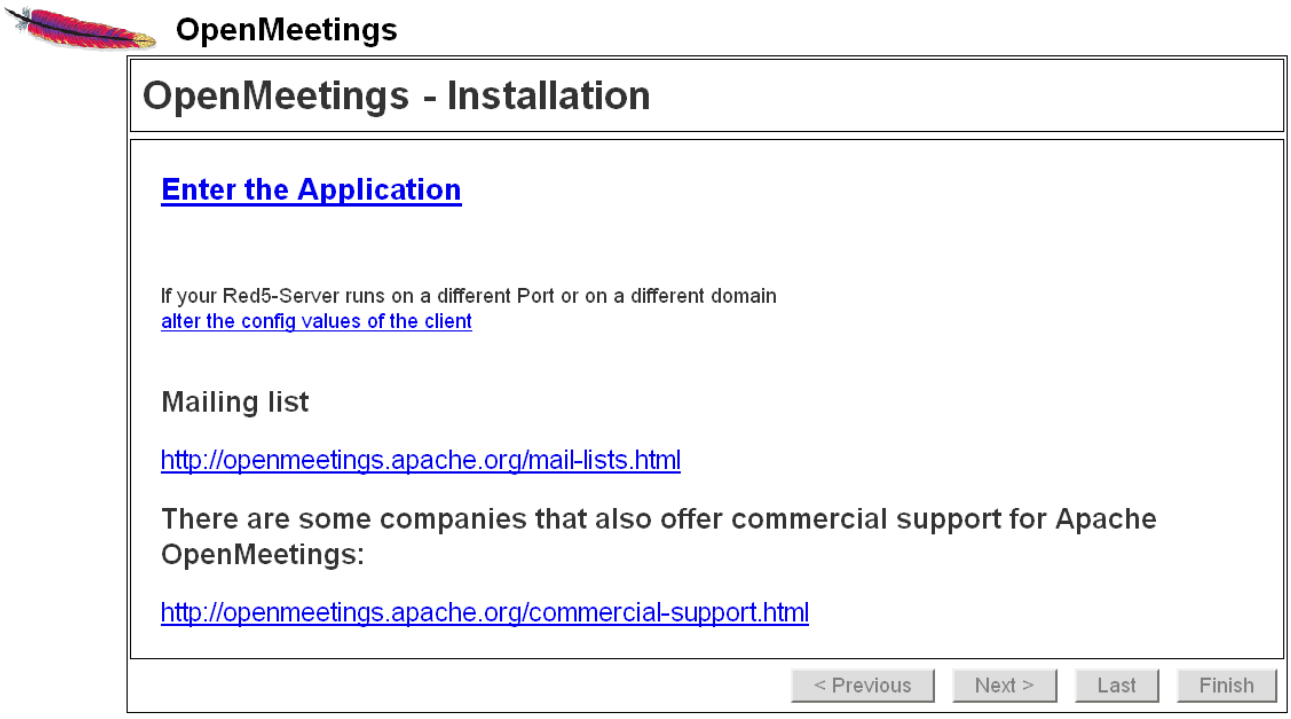
User Time Zone = Country where is this server

Organisation(Domains)

Name = **example-openmeetings** ...group name to choose.

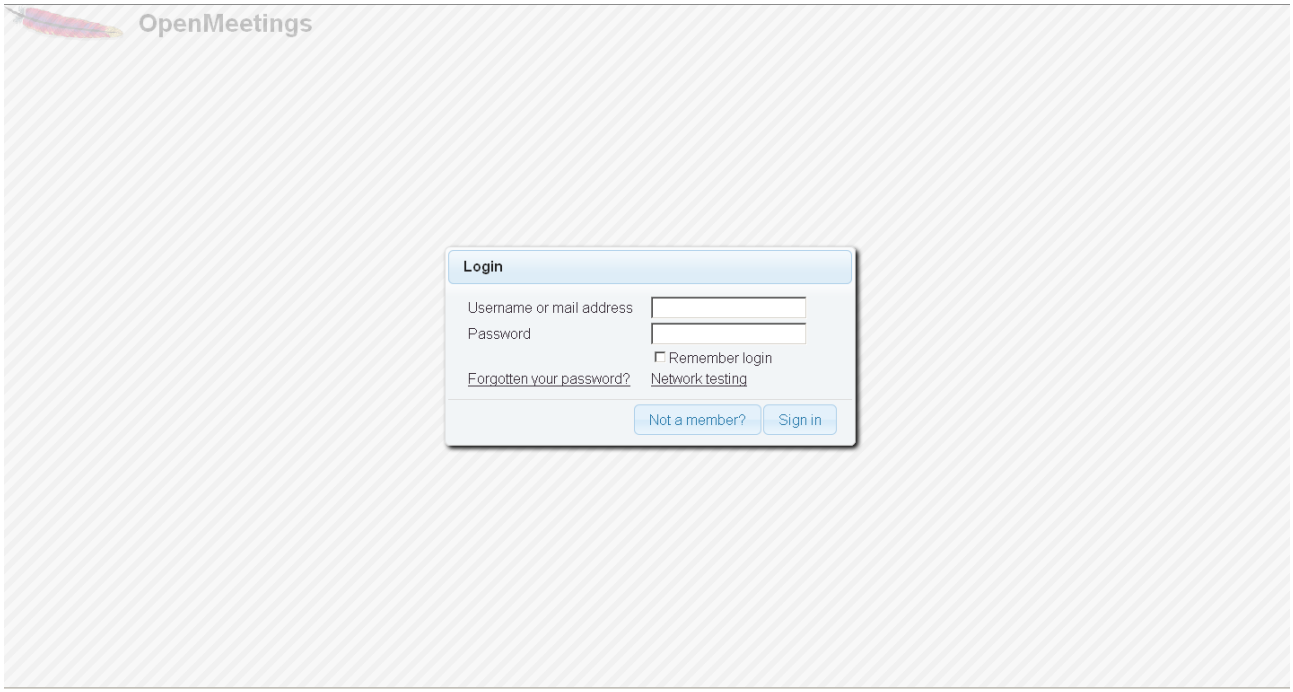
Go below completely of the page and touch the button **Finish**

...and wait a *moment* until the tables are constructed in the database.
When has concluded this another page will appear:



...clic on **Enter the Application**

..and we will see OpenMeetings's entry:



Introduce the user's name and the password that you have chosen during the installation and

...Congratulations!

The next time that you wants to accede to OpenMeetings will be:

http://localhost:5080/openmeetings

Remember to open in the server three following ports:

5080 1935 8088

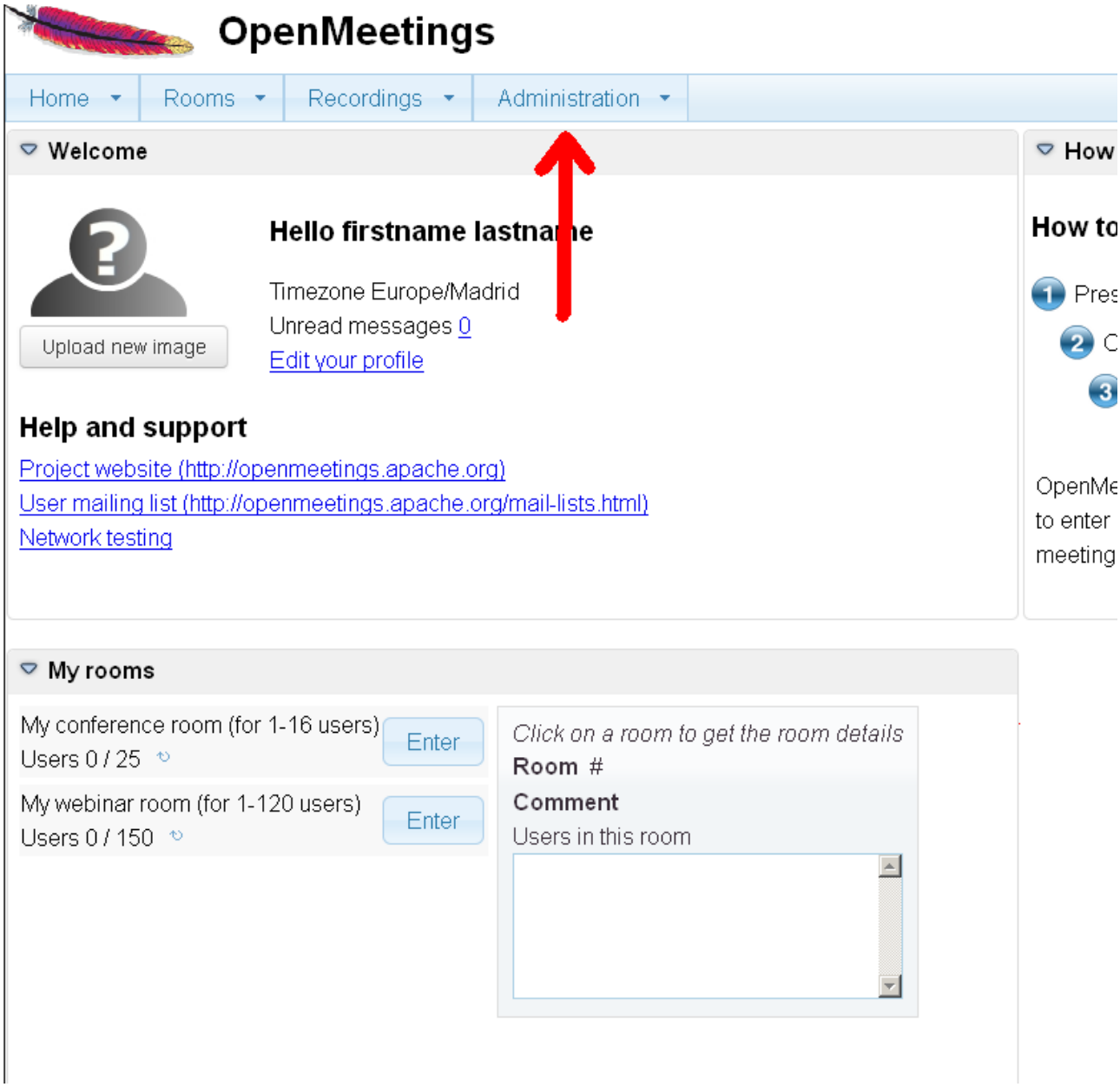
...in order that it could accede to OpenMeetings from other machines.

14)

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

Once we have acceded to OpenMeetings go to:

Administration → Configuration



...introduce the parameters for the conversion of files, the audio and the video:

Clic on: **swftools_path**...and to the right in **Value** type: **/usr/bin**

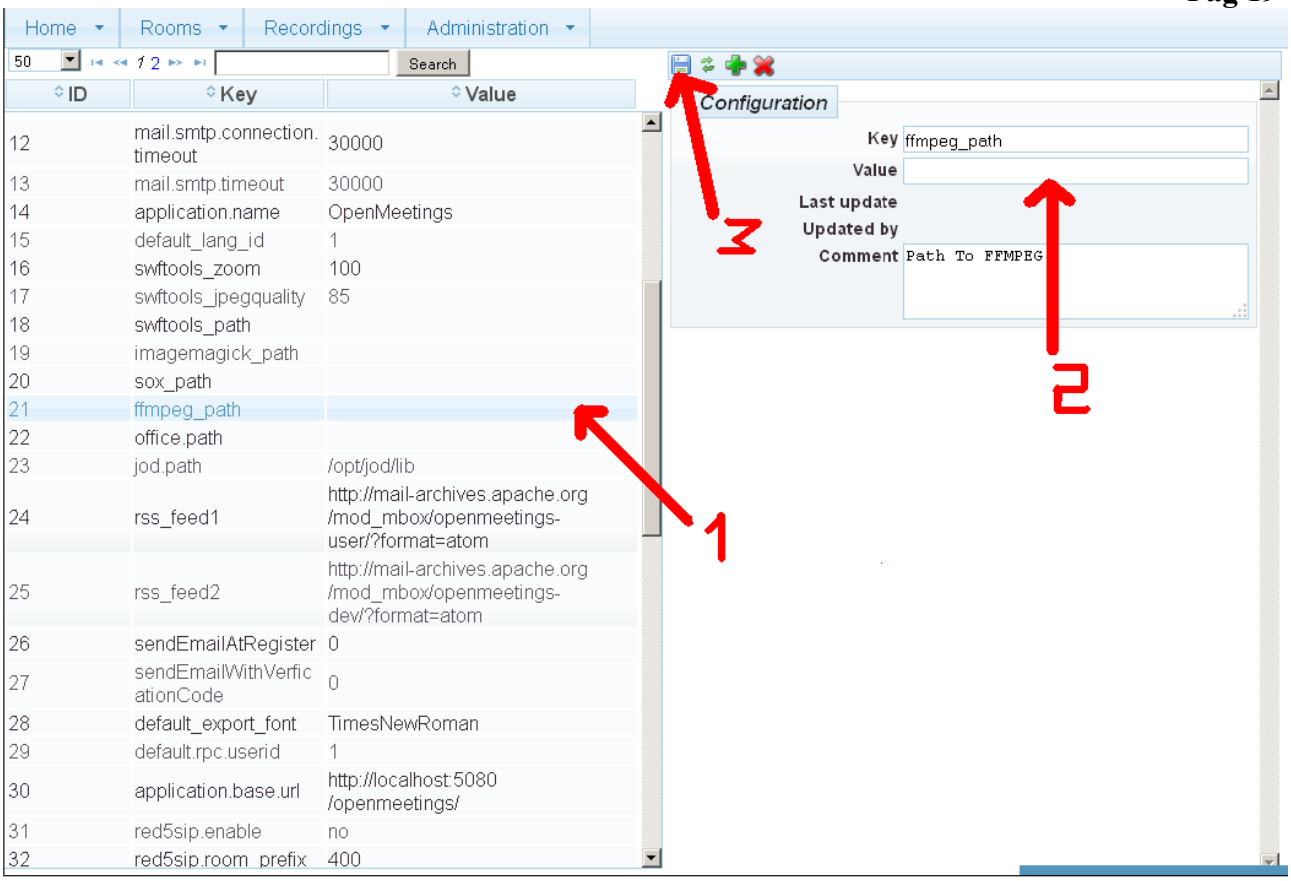
Clic on: **imagemagick_path**...and to the right in **Value** type: **/usr/bin**

Clic on: **sox_path**...and to the right in **Value** type: **/usr/local/bin**

Clic on: **ffmpeg_path**...and to the right in **Value** type: **/usr/bin**

Clic on: **office.path**...and to the right in **Value** type (32 bits): **/usr/lib/libreoffice**
Clic on: **office.path**...and to the right in **Value** type (64bits): **/usr/lib64/libreoffice**

Clic on: **jod.path**...and to the right in **Value** type: **/opt/jodconverter-core-3.0-beta-4/lib**



Now there is OpenMeetings ready to work completely.

15)

We are going to remove files and folders that already do not serve us, if you do not want to save them.

rm -f /opt/jodconverter-core-3.0-beta-4-dist.zip

rm -f /opt/mysql-connector-java-5.1.29.jar

rm -f /opt/lame-3.99.5.tar.gz

rm -f /opt/sox-14.4.1.tar.gz

rm -f /opt/swftools-2013-04-09-1007.tar.gz

rm -f /opt/ffmpeg-2.1.3.tar.gz

rm -f -R /opt/lame-3.99.5

rm -f -R /opt/sox-14.4.1

rm -f -R /opt/swftools-2013-04-09-1007

rm -f -R /opt/ffmpeg-2.1.3

And that is all.

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

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

Thank you

Alvaro Bustos