



## **Installation of Apache OpenMeetings 3.x.x on Fedora 20 – 64bit**

This tutorial it is bassed on two fresh installa-  
tions of

**Fedora-Live-Desktop-x86\_64-20-1.iso**

and after this add Mate Desktop and Kde  
Desktop respectively.

It is tested in both versions with positive result.  
We will use the Apache's binary version:

OpenMeetings 3.0.3 stable

that is to say should suppress his compilation.

It is done step by step.

8-9-2014

Starting...

1)

At first place modify Selinux level security for the installation.

```
sudo gedit /etc/selinux/config
```

...modify:

SELINUX=**enforcing**

...to

SELINUX=**permissive**

When finish the installation you can back to enforcing level.

2)

#### ----- Update Operative System -----

Update operative system:

```
yum update -y
```

...and reboot for kernel changes:

```
reboot
```

3)

Now it was when i add the Mate and Kde Desktops, in each fresh installation respectively.

4)

#### ----- ADD Repos -----

```
## RPM Fusion repo ##
```

For Gnome (Mate)...all in one line only:

```
su -c 'yum localinstall --nogpgcheck http://download1.rpmfusion.org/free/fedora/rpmfusion-free-release-stable.noarch.rpm http://download1.rpmfusion.org/nonfree/fedora/rpmfusion-nonfree-release-stable.noarch.rpm'
```

...and for Kde...all in one line only with a space between both:

```
su -c 'yum -y install wget && wget http://apt.kde-redhat.org/apt/kde-redhat/fedora/kde.repo -O /etc/yum.repos.d/kde.repo'
```

```
## Adobe repo 64-bit x86_64 ## For Flash player.
```

```
rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-x86_64-1.0-1.noarch.rpm
```

```
rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-adobe-linux
```

Fast searches repos:

```
sudo yum -y install yum-plugin-fastestmirror
```

```
sudo yum -y install yum-presto
```

```
yum update -y
```

5)

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

Should install packages and libraries necessary:

...all in one line only:

```
yum install -y libjpeg-turbo libjpeg-turbo-devel libjpeg-turbo-utils giflib-devel freetype-devel gcc-c++ zlib-devel libtool bison bison-devel file-roller ghostscript freetype-unzip gcc ncurses make bzip2 wget ImageMagick ghostscript ncurses zlib git make automake nasm pavucontrol alsa-plugins-pulseaudio flash-plugin vlc icedtea-web nmap wget glib gedit
```

6)

#### ----- **LibreOffice or OpenOffice** -----

LibreOffice it is installed already in the distro.

Is need it to convert upload files.

7)

#### ----- **Oracle Java 1.7** -----

Oracle Java 1.7 it is necessary to OpenMeetings works.

OpenJava 1.7 it is installed already, but is not ok for installing OpenMeeting.

In the beginning we had installed **icedtea-web** that is a browser java plugin, maybe can help for room recordings and share desktop from Conference Room in OpenMeetings.

We'll should install Oracle Java 1.7.

Please visit:

<http://www.oracle.com/technetwork/java/javase/downloads/jdk7-downloads-1880260.html>

...click on:

**Agree and proceed**

...click on:

**Accept License Agreement**

...and download the file called:

**jdk-7u67-linux-x64.rpm**

Place where the file was downloaded, for example:

```
cd /home/you_user
```

...and install it:

```
rpm -Uvh jdk-7u67-linux-x64.rpm
```

```
update-alternatives --install /usr/bin/java java /usr/java/jdk1.7.0_67/jre/bin/java 20000
```

```
update-alternatives --install /usr/bin/jar jar /usr/java/jdk1.7.0_67/bin/jar 20000
```

```
update-alternatives --install /usr/bin/javac javac /usr/java/jdk1.7.0_67/bin/javac 20000
```

```
update-alternatives --install /usr/bin/javaws javaws /usr/java/jdk1.7.0_67/jre/bin/javaws 20000
```

...now you must choose between OpenJava and Oracle Java to work with. Type the number **2** after run this command:

```
update-alternatives --config java
```

...so we select Oracle Java.

The next commands will give only one option each. Then is not what to choose:

```
update-alternatives --config javaws
```

```
update-alternatives --config javac
```

8)

#### ----- Installation MariaDB database server -----

MariaDB is the new database server.

We install it:

```
yum install -y mariadb mariadb-server
```

...and starting mariadb:

```
systemctl start mariadb.service
```

Give a password to mariadb root admin:

```
mysqladmin -u root password new-password
```

Make a database for OpenMeetings:

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

...will ask for the root password we does just now:

```
CREATE DATABASE open303 DEFAULT CHARACTER SET 'utf8';
```

...now do a new user with a new password:

```
CREATE USER 'hola'@'localhost' IDENTIFIED BY '123456';
```

...and give privileges to this user on the open303 database:

```
GRANT ALL PRIVILEGES ON open303.* TO 'hola'@'localhost' WITH GRANT OPTION;
```

```
FLUSH PRIVILEGES;
```

```
quit
```

open303 ..... name of the database  
hola ..... user for that database  
123456 ..... password of that user

To start, restart and stop mariadb:

systemctl start mariadb.service

systemctl restart mariadb.service

systemctl stop mariadb.service

9)

### ----- ImageMagick -----

We had installed ImageMagick in the beginning.  
Will work with png, jpg, gif, etc

10)

### ----- Sox -----

Sox is already installed in the distro.  
Will work sound about.

11)

### ----- Swftools -----

Swftools participate in convert uploaded files to swf and show them in the blackboard.

Will compile it:

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
```

```
cd /opt
```

12)

----- Compile and installation of ffmpeg, lame, yasm and x264-----

To compile and install ffmpeg, lame, yasm and x264, i've followed a guide with some little modifications:

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

Ffmpeg will work with the video. se encargará del trabajo con el video.

Starting...

Please copy and paste as it is, do not make any change.

```
mkdir ~/ffmpeg_sources
```

```
cd ~/ffmpeg_sources
```

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

```
curl -O http://www.tortall.net/projects/yasm/releases/yasm-1.2.0.tar.gz
```

```
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
```

```
curl -O http://downloads.xiph.org/releases/opus/opus-1.1.tar.gz
```

```
curl -O http://downloads.xiph.org/releases/ogg/libogg-1.3.1.tar.gz
```

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

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

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

### 1) ---- YASM ----

```
cd ~/ffmpeg_sources  
tar xzvf yasm-1.2.0.tar.gz  
cd yasm-1.2.0  
./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin"  
make  
make install  
make distclean  
export "PATH=$PATH:$HOME/bin"
```

### 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
```

(All in only one line with space)

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

```
make
```

```
make install
```

```
make distclean
```

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

```
cd ~/ffmpeg_sources
```

```
tar xzvf opus-1.1.tar.gz
```

```
cd opus-1.1
```

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

```
make
```

```
make install
```

```
make distclean
```

#### 6) ---- libogg ----

```
cd ~/ffmpeg_sources
```

```
tar xzvf libogg-1.3.1.tar.gz
```

```
cd libogg-1.3.1
```

```
./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
```

(Copy line to 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  
PKG_CONFIG_PATH="$HOME/ffmpeg_build/lib/pkgconfig"  
export PKG_CONFIG_PATH
```

(Copy line to line)

```
./configure --prefix="$HOME/ffmpeg_build" --extra-cflags="-I$HOME/ffmpeg_build/include" --extra-ldflags="-  
L$HOME/ffmpeg_build/lib" --bindir="$HOME/bin" --extra-libs=-ldl --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

. ~/.bash_profile

```

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
```

13)

#### ----- Jodconverter -----

We need Jodconverter to convert the uploaded files.

```
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
```

14)

#### ----- Installation of Apache OpenMeetings -----

We'll install the 3.0.3 stable version.

Should make the OpenMeetings installation in /opt/red5303

Make a folder called **red5303** where download the Apache OpenMeetings file and where make the installation:.

```
mkdir /opt/red5303
```

This url that you can visit, is the Apache OpenMeetings 3.0.3 stable version:

<http://openmeetings.apache.org/downloads.html>

Now please follow this for the installation:

```
cd /opt/red5303
```

```
wget http://apache.rediris.es/openmeetings/3.0.3/bin/apache-openmeetings-3.0.3.zip
```

```
unzip apache-openmeetings-3.0.3.zip
```

...save the original file to /opt:

```
mv apache-openmeetings-3.0.3.zip /opt
```

15)

#### ---- Connector Java MariaDB----

This file is need it to connect OpenMeetings with MariaDB:

```
cd /opt
```

```
wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.32/mysql-connector-java-5.1.32.jar
```

```
cp mysql-connector-java-5.1.32.jar /opt/red5303/webapps/openmeetings/WEB-INF/lib
```

and do to **nobody** owner of OpenMeetings:

```
chown -R nobody /opt/red5303
```

16)

#### ----- Configuration of OpenMeetings for MariaDB -----

Will configure OpenMeetings to connect with MariaDB:

```
cd /opt/red5303/webapps/openmeetings/WEB-INF/classes/META-INF
```

```
mv persistence.xml persistence.xml-ori
mv mysql_persistence.xml persistence.xml
cd /opt
```

For **MATE**:

```
sudo pluma /opt/red5303/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml
```

For **KDE**:

```
sudo kwrite /opt/red5303/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml
```

...and modify line 81:

```
Url=jdbc:mysql://localhost:3306/openmeetings?.....
```

to

```
Url=jdbc:mysql://localhost:3306/open303?....
```

...**open303** is the database name we gives when install MariaDB and build it.

Modify also **lines 86** and **87** respectively:

```
, Username=root
, Password="" />
```

to

```
, Username=hola
, Password=123456" />
```

...**hola** is the user name we gives when install MariaDB for **open303** database.

... **123456** is the password for **hola** user.

If you choose any other database name, user name or password here is where to change.

Protect the access to this file:

```
chmod 640 /opt/red5303/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml
```

17)

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

Build a script to start and stop red5-OpenMeetings, that we'll call **red5**

For **MATE**: `sudo pluma /etc/init.d/red5`

For **KDE**: `sudo kwrite /etc/init.d/red5`

...copy and past the text from here:

```
#
#!/bin/sh -e
#
# Startup script for Red5

export RED5_HOME=/opt/red5303

start_red5="$RED5_HOME/red5.sh start"
stop_red5="$RED5_HOME/red5-shutdown.sh stop"

start() {
    echo -n "Starting Red5: "
    ${start_red5} &
    echo "done."
}

stop() {
    echo -n "Shutting down Red5: "
    ${stop_red5}
    echo "done."
}

case "$1" in
    start)
        start
        ;;
    stop)
        stop
        ;;
    restart)
        stop
        sleep 10
        start
        ;;
    *)
        echo "Usage: $0 {start|stop|restart}"
esac

exit 0
```

...to here.

If you made the installation in any other path, can modify the line:

```
RED5_HOME=/opt/red5303
```

to

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

Give permission of execution to the script:

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

**18)**

Restart mariadb:

```
systemctl restart mariadb.service
```

...and start red5-OpenMeetings:

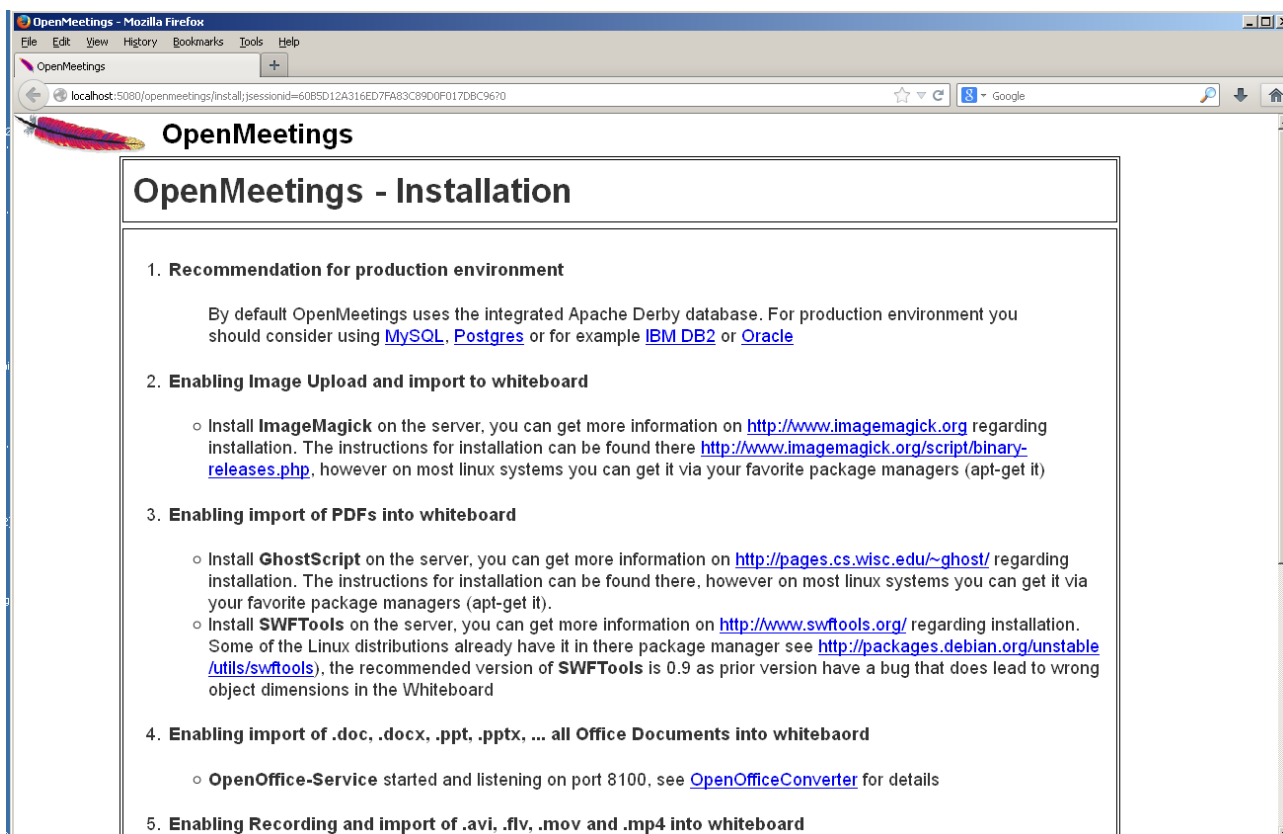
```
/etc/init.d/red5 start
```

...wait some long seconds and later go with browser to:

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

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





..click **Next** button in the foot page and this other page will appear:

**OpenMeetings - Installation**

- 'cfg.username' is required.
- 'cfg.password' is required.
- 'cfg.email' is required.
- 'cfg.group' is required.

**Userdata**

Username

Userpass

Email

User Time Zone

**Organisation(Domains)**

Name

< Previous   Next >   Last   Finish

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

Username = **a-name** ...This user name will have administrator rights.

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

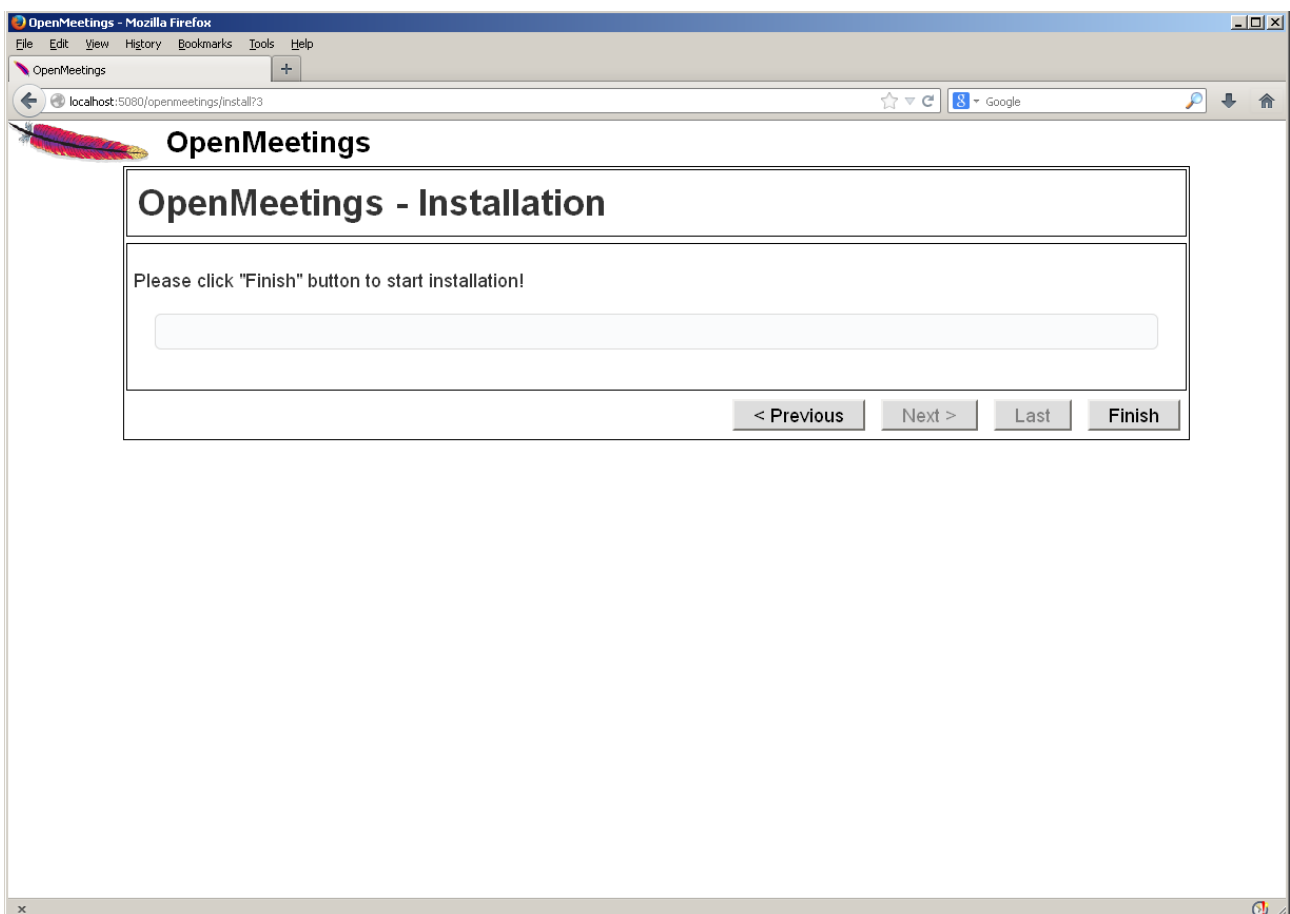
EEmail = **email-adress** ...of the previous user.

User Time Zone = Select your geographyc situation

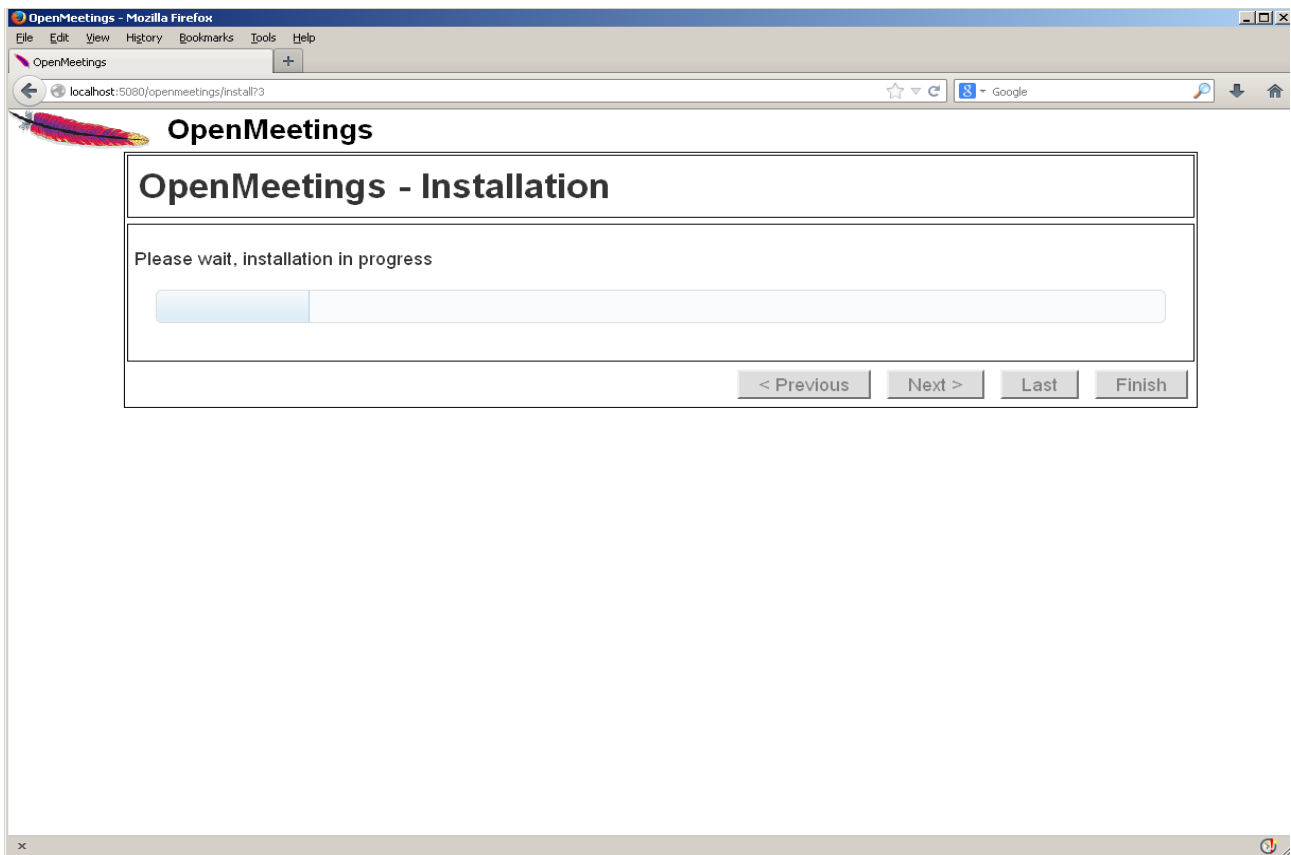
Name = **example-openmeetings** ...group name to choose

After finish the complet installation we'll configure the rest.

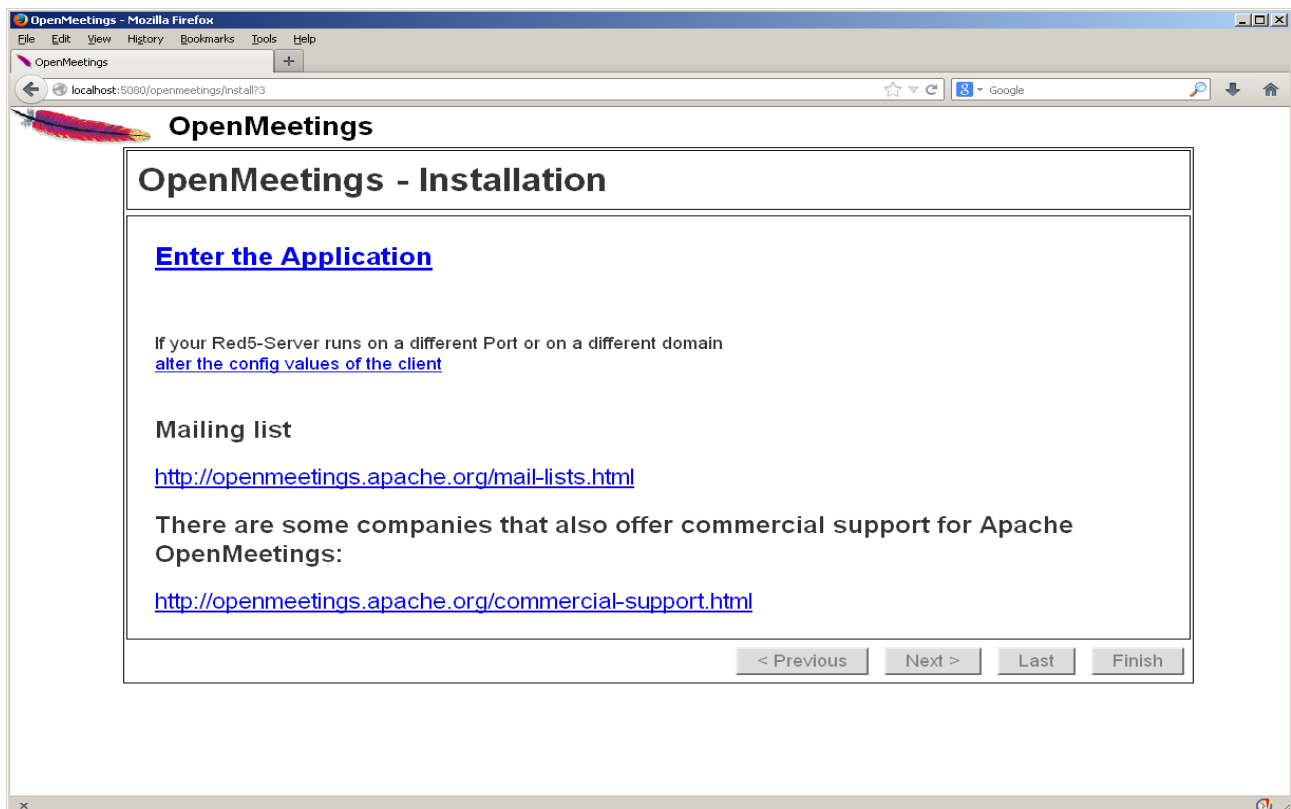
...click **Last** and this other page will appear:



...click **Finish** and will start to fill the database tables:

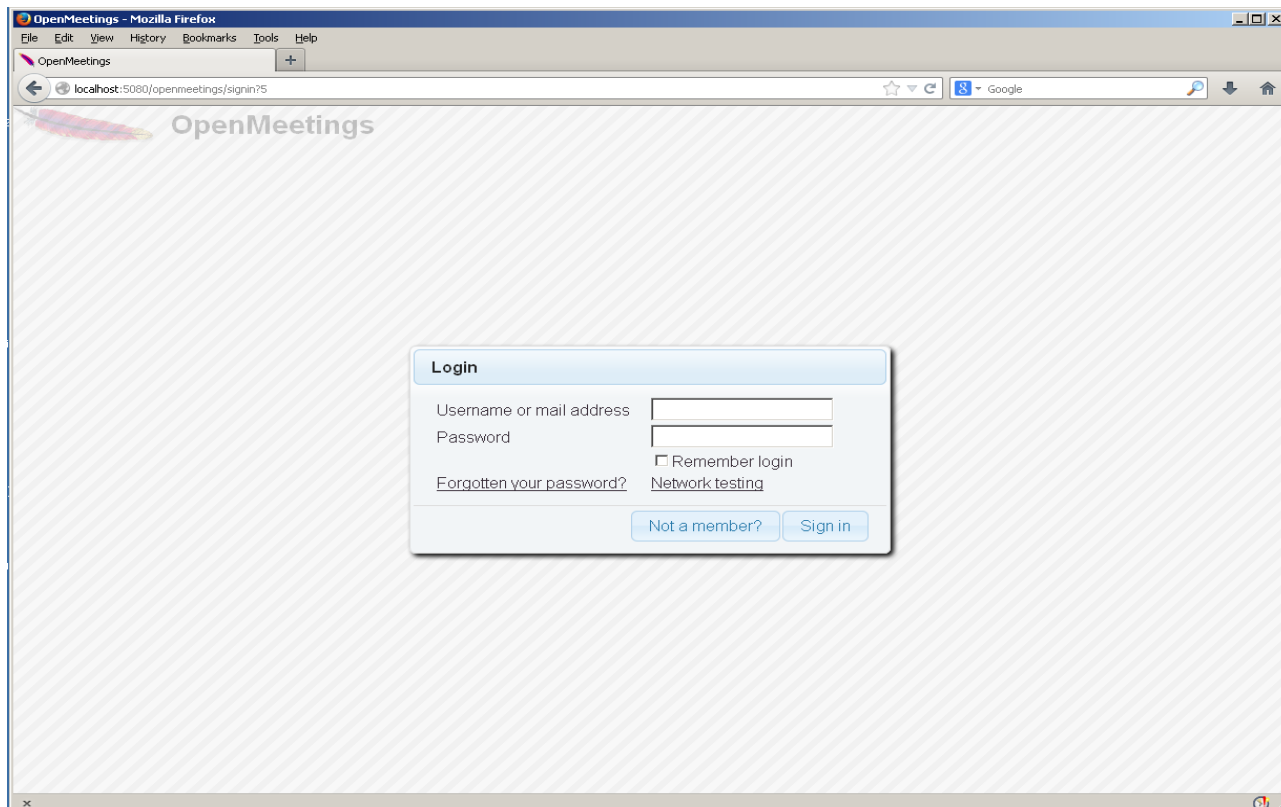


When finish should show this page:



...click [Enter the Application](#) and we'll see OpenMeetings's login page.

**...Congratulations!**



Introduce the user's name and the password that you have chosen during the installation and clic **Sign in**.

The next time to access OpenMeetings will be:

<http://localhost:5080/openmeetings>

Remember open in the server these three ports:

**1935   5080   8088**

...in order can accede to OpenMeetings from other machines in Lan or Internet.

16)

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

Once have acceded to OpenMeetings we go to: **Administration → Configuration**

**OpenMeetings - Mozilla Firefox**

localhost:5080/openmeetings/#user/dashboard

**OpenMeetings**

Home Rooms Recordings **Administration**

**Welcome**

Hello firstname lastname

Timezone Europe/Madrid

Unread messages [0](#)

[Edit your profile](#)

**Help and support**

[Project website \(http://openmeetings.apache.org/\)](http://openmeetings.apache.org/)

[User mailing list \(http://openmeetings.apache.org/mail-lists.html\)](http://openmeetings.apache.org/mail-lists.html)

[Network testing](#)

**How to conference**

**How to conference**

- 1 Press start
- 2 Choose room
- 3 Check setup
- 4 Start conference

OpenMeetings, your web conferencing platform. You can either follow the 1-2-3 steps to enter a conference room directly or you choose the Calendar to set up and plan a meeting.

[START](#)

[Calendar](#)

**My rooms**

My conference room (for 1-16 users)

Users 0 / 25 [Enter](#)

My webinar room (for 1-120 users)

Users 0 / 150 [Enter](#)

Click on a room to get the room details

**Room #**

**Comment**

Users in this room

**OpenMeetings - Mozilla Firefox**

localhost:5080/openmeetings/#admin/config

**OpenMeetings**

Home Rooms Recordings **Administration**

**Configuration**

ID	Key	Value
4	default_group_id	1
5	default_domain_id	1
6	smtp_server	localhost
7	smtp_port	25
8	system_email_addr	noreply@openmeetings.apache.org
9	email_username	
10	email_userpass	
11	mail.smtp.starttls.enable	0
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default_lang_id	1
16	swftools_zoom	100
17	swftools_jpegquality	85
18	swftools_path	
19	imagemagick_path	
20	sox_path	
21	ffmpeg_path	
22	office.path	
23	jod.path	/opt/jod/lib
24	rss_feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user@apache.org

**Configuration**

Key:

Value:

Last update:

Updated by:

Comment:

...introduce the path for files conversion, audio and video:

Click on: **swftools\_path** ...and to up right in **Value** type: [/usr/bin](#)

Click on: **imagemagick\_path** ...and to up right in **Value** type: [/usr/bin](#)

Click on: **sox\_path** ...and to up right in **Value** type: [/usr/bin](#)

Click on: **ffmpeg\_path** ...and to up right in **Value** type: [/usr/local/bin](#)

Click on: **office.path** ...and to up right in **Value** type: [/usr/lib64/libreoffice](#)

Click on: **jod.path** ...and to up right in **Value** type: [/opt/jodconverter-core-3.0-beta-4/lib](#)

Remember to do the number 3 on picture to save each change.

To stop red5-OpenMeetings: [/etc/init.d/red5 stop](#)

**Flash Player** it was installed in the beginning. OpenMeetings even need it for rooms.

And that 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