Installation of Apache OpenMeetings 3.3.0

on

Fedora 25 final

This tutorial it is bassed on a fresh installa-
tion of

Fedora-MATE_Compiz-Live-x86_64-25-1.3.iso

It is tested with positive result.
We will use the Apache's binary version
OpenMeetings 3.3.0 stable,
that is to say we´ll suppress his compilation.
It is done step by step.

14-7-2017

Starting...

1)
At first place, modify Selinux level security, for the installation, and install nano editor:

dnf install nano

sudo nano /etc/selinux/config

…modify:

SELINUX=**enforcing**

...to

SELINUX=**permissive**

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

When finish the installation you can leave the level.

2)

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

Update operative system:

dnf update -y

...and reboot, for kernel changes if it is and the new **Selinux** configuration:

reboot

3)

------ ADD Repos ------

RPM Fusion repo

(Only one line without space between them)

su -c 'dnf install --nogpgcheck http://download1.rpmfusion.org/free/fedora/rpmfusion-free-release-27.noarch.rpm http://download1.rpmfusion.org/nonfree/fedora/rpmfusion-nonfree-release-27.noarch.rpm'

Adobe repo **32 bit** ### For Flash Player.

rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-i386-1.0-1.noarch.rpm

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

Adobe repo **64-bit** ### 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

Update again:

dnf update -y

4)

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

We install packages and libraries necessary:

(Only one line with a space between them)

dnf 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 ghostscript ncurses zlib git make automake nasm pavucontrol alsa-plugins-pulseaudio nmap tomcat-native 'dnf-command(versionlock)'

5)

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

Java **1.8** is need it to work OpenMeetings **3.3.0**. Will install Oracle Java 1.8. Open Java gaves an error in some OpenMeetings function. It is tested.

-- Only for Fedora 32 bit --

cd /opt

Download the file:

(All in one line only. 1ª and 2ª without space between them. A space to the 3ª. Together 3ª and 4ª)

wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F%2Fwww.oracle.com%2F; oraclelicense=accept-securebackup-cookie" http://download.oracle.com/otn-pub/java/jdk/8u131-b11/d54c1d3a095b4ff2b6607d096fa80163/jdk-8u131-linux-i586.rpm

...and install it:

rpm -ivh jdk-8u131-linux-i586.rpm

-- Only for Fedora 64 bit –

cd /opt

Download the file:

(All in one line only. 1ª and 2ª without space between them. A space to the 3ª. Together 3ª and 4ª)

wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F%2Fwww.oracle.com%2F; oraclelicense=accept-securebackup-cookie" http://download.oracle.com/otn-pub/java/jdk/8u131-b11/d54c1d3a095b4ff2b6607d096fa80163/jdk-8u131-linux-x64.rpm

...and install it:

rpm -ivh jdk-8u131-linux-x64.rpm

-- **Now for both**, **32 bit and 64 bit** –

May be you have installed different versions of Java. We select the just installed Oracle Java:

update-alternatives --config java

And to see if the selected version is active:

java -version

6)
------ Installation of LibreOffice ------

LibreOffice it is installed already in the distro, but if you use a server iso then install it:

dnf -y install libreoffice

Is need it to convert uploaded office files to pdf.

7)
------ Installation of ImageMagick, Sox and Swftools ------

 ImageMagick, work with the images files jpg, png, gif, etc. Install it:

dnf -y install ImageMagick

Sox, work with the audio. Install it:

dnf -y install sox

Swftools. LibreOffice convert the uploaded office files to pdf, and Swftools convert these pdf to swf (flash file), that later will show in the whiteboard. We´ll install it from the repo, ´cause this version (0.9.2-4.fc25) have the pdf2swf file. Also we´ll block it to prevent changes:

dnf install -y swftools

dnf versionlock add swftools   ...to block the version

8)

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

OpenMeetings even need Adobe Flash Player for rooms. We install it:

dnf install -y flash-plugin

9)

------ Compilation of FFmpeg ------

FFmpeg will work with video. Will install a paquets and libraries.

(Only one line with space between both)

dnf install -y glibc alsa-lib-devel gsm gsm-devel imlib2 imlib2-devel libogg libvorbis vorbis-tools theora-tools libvpx-devel mercurial cmake curl git vlc

This ffmpeg compilation is based on this url, and updated to14-7-2017.

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

I made a script to download, compile and install ffmpeg on Fedora. It is tested and is ok.
The result of any recording we do in OpenMeetings, will be in mp4 format.

We download this script:

cd /opt

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

...concede execution permission:

chmod +x ffmpeg-fedora.sh

...and run it:

./ffmpeg-fedora.sh

The compilation will spend about 30 minutes.

At the end, a text will apear: FFMPEG Compilation is Finished!

Then, please go to **step 10)**.

But if you prefer copy and paste, i **don´t advise,** here are the commands script:

sudo nano /opt/ffmpeg-fedora.sh

...copy the green text **from here**:

FFmpeg compilation for Fedora.
Alvaro Bustos, thanks to Hunter.

Updated14-7-2017

Install libraries
dnf install -y autoconf automake cmake freetype-devel gcc gcc-c++ git libtool make mercurial nasm
pkgconfig zlib-devel

Install yasm from repos
dnf install -y yasm

# Create a temporary directory for sources.
SOURCES=$(mkdir ~/ffmpeg_sources)
cd ~/ffmpeg_sources

Download the necessary sources.
curl -#LO ftp://ftp.videolan.org/pub/x264/snapshots/last_stable_x264.tar.bz2
hg clone https://bitbucket.org/multicoreware/x265
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-1.1.3.tar.gz
curl -O http://downloads.xiph.org/releases/ogg/libogg-1.3.2.tar.gz
curl -O http://downloads.xiph.org/releases/vorbis/libvorbis-1.3.5.tar.gz
wget http://downloads.xiph.org/releases/theora/libtheora-1.1.1.tar.gz
git clone --depth 1 https://chromium.googlesource.com/webm/libvpx.git
git clone --depth 1 git://source.ffmpeg.org/ffmpeg

# Unpack files
for file in `ls ~/ffmpeg_sources/*.tar.*`; do
tar -xvf $file

done

cd x264-*/
./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin" --enable-static && make &&
make install && make distclean; cd ..

cd x265/build/linux
cmake -G "Unix Makefiles" -DCMAKE_INSTALL_PREFIX="$HOME/ffmpeg_build"
-DENABLE_SHARED:bool=off ../../source && make && make install; cd ~/ffmpeg_sources

```
cd fdk-aac
autoreconf -fiv && ./configure --prefix="$HOME/ffmpeg_build" --disable-shared && make &&
make install && make distclean; cd ..

cd lame-*/
./configure --prefix="$HOME/ffmpeg_build" --bindir="$HOME/bin" --disable-shared --enable-
nasm && make && make install && make distclean; cd ..

cd opus-*/
autoreconf -fiv && ./configure --prefix="$HOME/ffmpeg_build" --disable-shared && make &&
make install && make distclean; cd ..

cd libogg-*/
./configure --prefix="$HOME/ffmpeg_build" --disable-shared && make && make install &&
make distclean; cd ..

cd libvorbis-*/
LDFLAGS="-L$HOME/ffmeg_build/lib" CPPFLAGS="-I$HOME/ffmpeg_build/include"
./configure --prefix="$HOME/ffmpeg_build" --with-ogg="$HOME/ffmpeg_build" --disable-shared
&& make && make install && make distclean; cd ..

cd libtheora-*/
./configure --prefix="$HOME/ffmpeg_build" --with-ogg="$HOME/ffmpeg_build" --disable-
examples --disable-shared --disable-sdltest --disable-vorbistest && make && make install; cd ..

cd libvpx
./configure --prefix="$HOME/ffmpeg_build" --disable-examples && make && make install &&
make clean; cd ..

cd ffmpeg
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" --pkg-config-flags="--static"
--enable-gpl --enable-nonfree --enable-libfdk_aac --enable-libfreetype --enable-libmp3lame
--enable-libopus --enable-libvorbis --enable-libvpx --enable-libx264 --enable-libx265 --enable-
libtheora && make && make install && make distclean && hash -r; cd ..

cd ~/bin
cp ffmpeg ffprobe ffserver lame x264 /usr/local/bin

cd ~/ffmpeg_build/bin
cp x265 /usr/local/bin

echo "FFMPEG Compilation is Finished!"
```

...**to here.**

Concede permission of execution:

chmod +x /opt/ffpmeg-fedora.sh

cd /opt

Now be connected to Internet, run the script and wait some long minutes while the compilation:

./ffmpeg-fedora.sh

All the compiled files will be installed on: /usr/local/bin

10)
------ Installation of MariaDB data server ------

MariaDB is the data server fork of MySQL.

We install it:

dnf install -y mariadb mariadb-server

...and run MariaDB (be connected to Internet, to run it quickly):

systemctl start mariadb.service

Give a password to root in MariaDB. Please, replace **new-password** by your own whish:

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:

  MariaDB [(none)]> CREATE DATABASE open330 DEFAULT CHARACTER SET 'utf8';

Now we create a user with all permision on this open330 database. User password must be of 8 digits minimum:

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open330.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;

* open330 .... name of the database
* hola   .... user for that database
* 1a2B3c4D .... password of that user

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

Now we leave MariaDB:

MariaDB [(none)]> quit

11)

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

Make a folder called **red5330** where download the Apache OpenMeetings file, and where we´ll do the installation:

mkdir /opt/red5330

cd /opt/red5330

...and download the file:

wget http://apache.miloslavbrada.cz/openmeetings/3.3.0/bin/apache-openmeetings-3.3.0.zip

unzip apache-openmeetings-3.3.0.zip

...save the original file to /opt:

mv apache-openmeetings-3.3.0.zip /opt

12)

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

This file is need it to connect OpenMeetings with MariaDB:

cd /opt

(Only one line without space between both)

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.42/mysql-connector-java-5.1.42.jar

cp mysql-connector-java-5.1.42.jar /opt/red5330/webapps/openmeetings/WEB-INF/lib

13)

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

Will configure OpenMeetings to connect with our database in MariaDB:

(Only one line without space between both)

sudo nano /opt/red5330/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

Modify line 72:

Url=jdbc:mysql://localhost:3306/openmeetings_3_3?.......

to

Url=jdbc:mysql://localhost:3306/open330?....

...open330 is the database name we gives when install MariaDB and build it.

If you choose any other database name, here is where to replace it.

Press **Ctrl+x,** will ask to save, pres **Y** and **Enter**.

Protect the access to this file:

(Only one line without space between both)

chmod 640 /opt/red5330/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

14)

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

We´ll download the script to run Red5-OpenMeetings on Fedora:

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/red5330, please edit the script and modify the line:

RED5_HOME=/opt/red5330

...to

RED5_HOME=/your-path-installation

15)

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

Run MariaDB (be connected to Internet, to run it quickly):

systemctl start mariadb.service

...and red5-OpenMeetings (be connected to Interner, to run it quickly):

/etc/init.d/red5-2 start

 ...wait untill the text "**clearSessionTable: 0**", it is the last in the shell. Be patience. Then, go with the browser to:

http://localhost:5080/openmeetings/install

...there will show a page similar to this one:

...press on [>] (bottom), and will show the default database configuration with Derby, but we

employ MySQL (MariaDB):
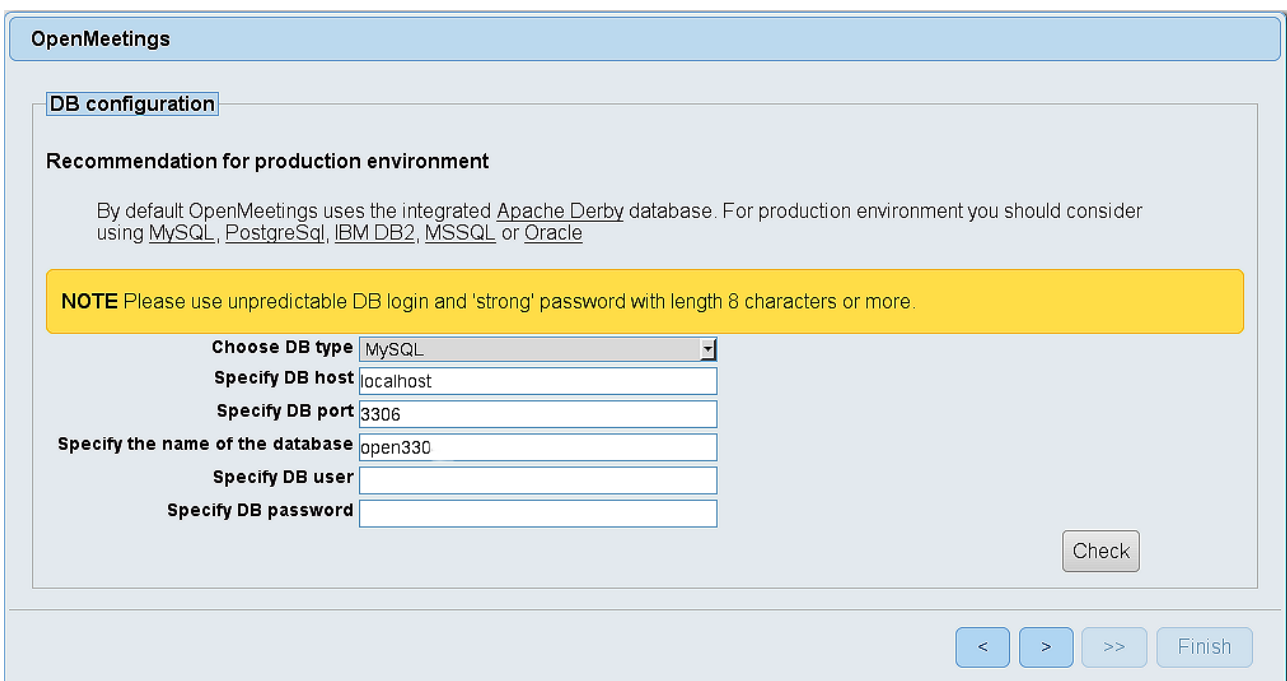
...then, scroll and **Choose DB type** to MySQL:

...will show the data base configuration we made in step 13.
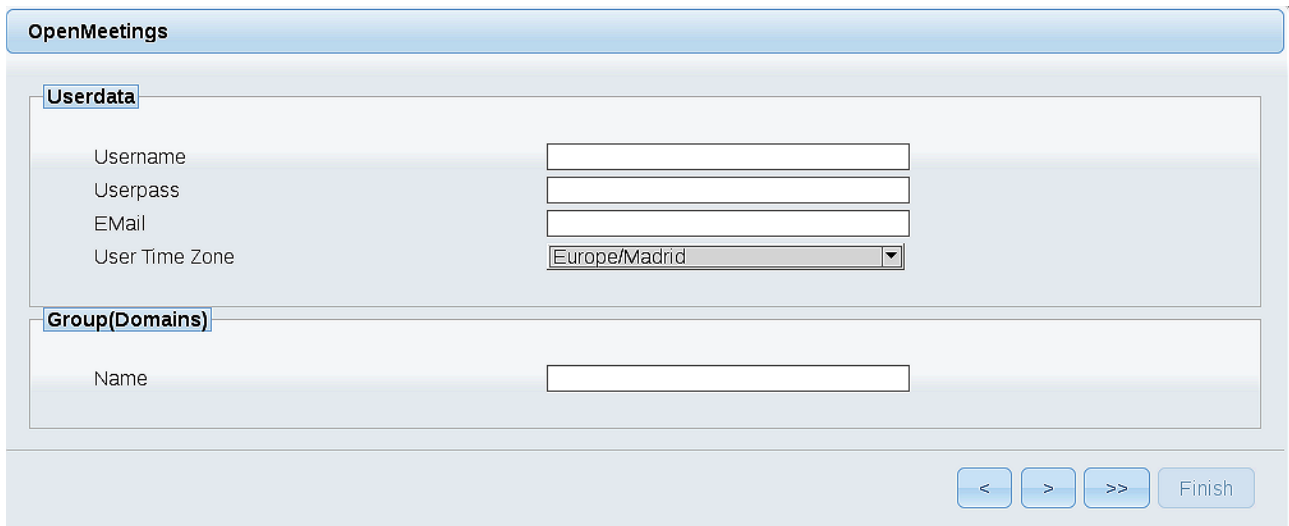
If you`ve choose any other different name for this, will show equally.
Now we must introduce the user name we did for our data base, at the step 10, and his password:

<div align="center">

Specify DB user = hola

Specify DB password = 1a2B3c4D

</div>

Please, press   >   button, and will go to:

OpenMeetings		
Userdata		
Username		
Userpass		
EMail		
User Time Zone	Europe/Madrid	
Group(Domains)		
Name		
		< > >> Finish

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 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.

A valid example to configure the mail server with Gmail, is as follows:
(replace **john@gmail.com** with your real Gmail account)
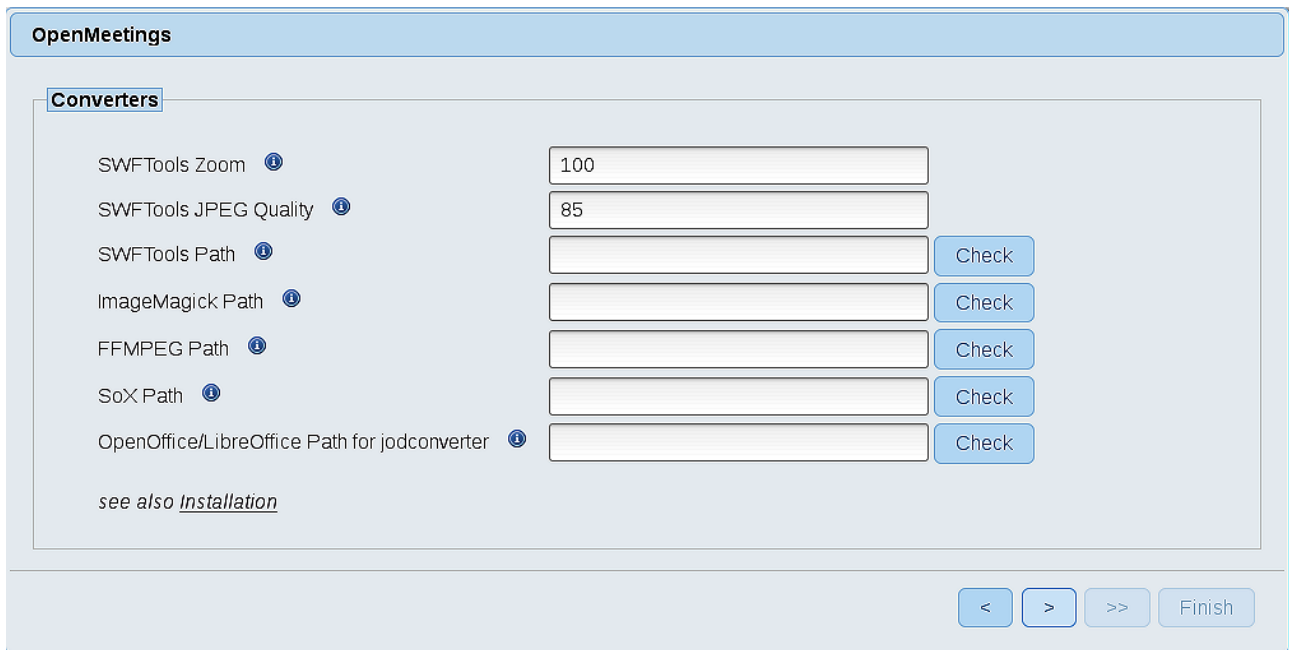

Mail-Refer (system_email_addr)   ==   john@gmail.com

SMTP-Server (smtp_server)   ==   smtp.gmail.com

SMTP-Server Port (default Smtp-Server Port is 25)
(smtp_port)   ==   587

SMTP-Username (email_username)   ==   john@gmail.com

SMTP-Userpass (email_userpass)   ==   password of john@gmail.com

Enable TLS in Mail Server Auth   ==   Yes

To select the language of your server OpenMeetings, please scroll on the line:

Default Language   ==   english

...the rest we can leave as is.

Now press the button | > | and a new page will appear:

OpenMeetings

Converters

SWFTools Zoom ⓘ	100
SWFTools JPEG Quality ⓘ	85
SWFTools Path ⓘ	[ ] Check
ImageMagick Path ⓘ	[ ] Check
FFMPEG Path ⓘ	[ ] Check
SoX Path ⓘ	[ ] Check
OpenOffice/LibreOffice Path for jodconverter ⓘ	[ ] Check

see also Installation

| < | > | >> | Finish |

Here we´ll introduce the respective paths for the image, video, audio and conversion of uploaded files:

SWFTools Path (Path)	==	/usr/bin
ImageMagick Path (Path)	==	/usr/bin
FFMPEG Path (Path)	==	/usr/local/bin
SOX Path (Path)	==	/usr/bin
OpenOffice/LibreOffice Path (Path) for jodconverter	==	/usr/lib/libreoffice **(32bits)**
	==	/usr/lib64/libreoffice **(64bits)**

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:

Now push the button [>] Will show this window:

Push **Finish** button ...wait a seconds untill 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 (be connected to Internet):

/etc/init.d/red5-2 restart
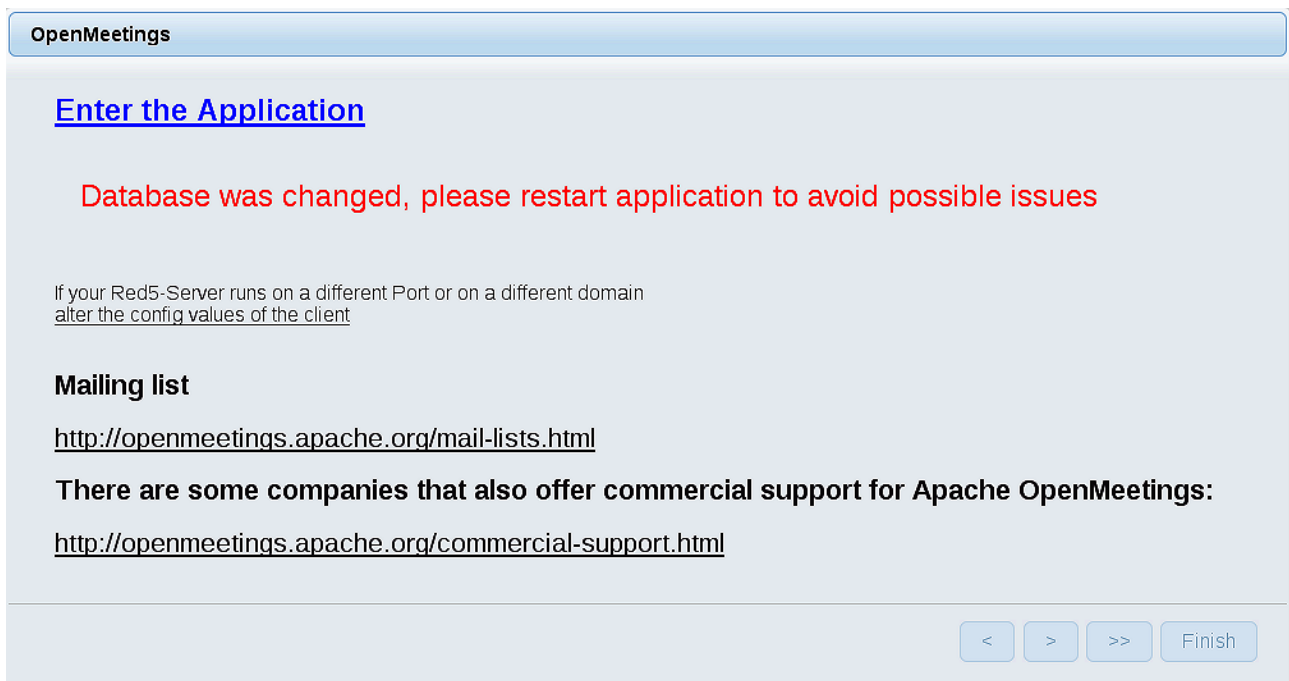
Now yes, you can clic on **Enter the Application**, or go with your browser to:

http://localhost:5080/openmeetings

...and will take us to the entry of OpenMeetings:

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.

16)

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

Once you acced to OpenMeetings, if you would like to do any modification in the configuration, please go to:

Administration → Configuration
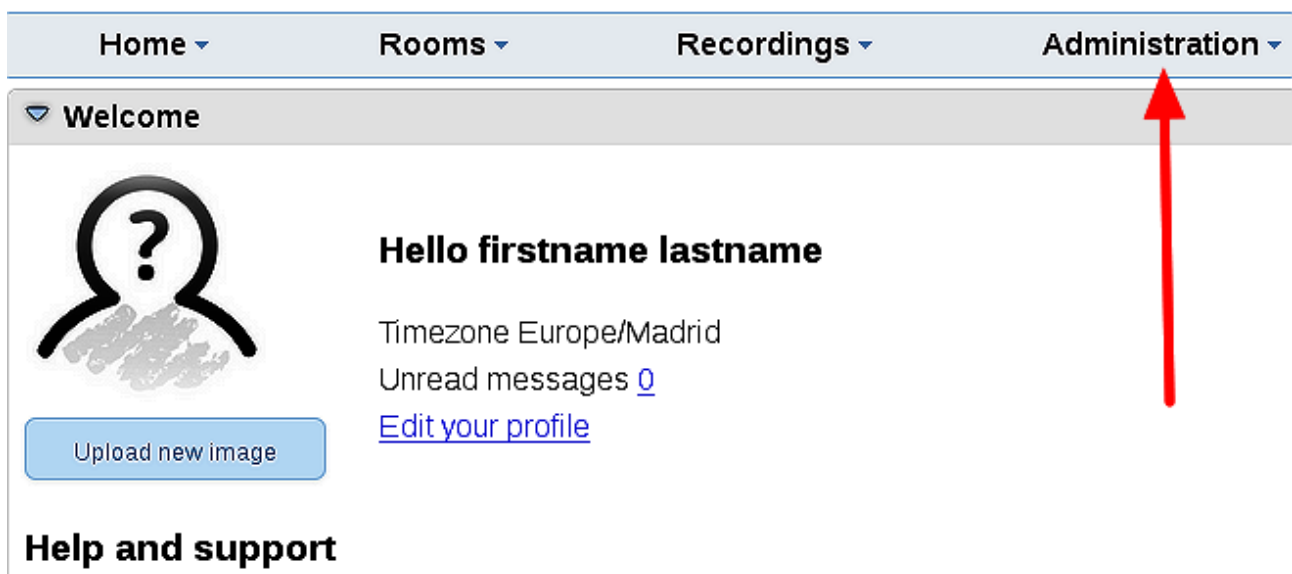
...and following the order of the red arrows:

And this is all.

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

Thank you.

Alvaro Bustos