Installation of Apache OpenMeetings 4.0.2 on Gentoo

This tutorial is based on a fresh installations on

stage3-amd64-20170202.tar.bz2

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.2 stable, that is to say will suppress his compilation. It is done step by step.

25-2-2018

Please, be connected to Internet during all the process tu run any server.

Starting...

1)

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

Open a terminal as root:

su

...will ask for root password, and we update the operative system:

emerge -uaD world

2)

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

Java **1.8** it is necessary for OpenMeetings **4.0.2**. We´ll install Oracle Java.

cd /usr/portage/distfiles

...download the java 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/8u161-b12/2f38c3b165be4555a1fa6e98c45e0808/jdk-
8u161-linux-x64.tar.gz

...we install it:

emerge --verbose dev-java/oracle-jdk-bin:1.8

...maybe you have installed various versions of Java. We see it:

java-config –list-available-vms

...select the just installed Oracle Java:

java-config --set-system-vm oracle-jdk-bin-1.8

...and to see the active version:

java -version

3)
------ Installation of LibreOffice ------

OpenMeetings will need LibreOffice to convert to pdf the uploaded office files.

We install it (will spend about 35 minutes):

cd /opt

emerge libreoffice-bin

4)
------ Installation of necessary packages and libraries ------

Will install packages and libraries that we´ll need later:

emerge zlib libtool bzip2 autoconf automake pkgconfig tomcat-native nmap freetype nano

5)

------ Installation ImageMagick and Sox ------

ImageMagick, will work with images files jpg, png, gif, etc. We install it:

emerge imagemagick

Sox, work the sound. Install it:

emerge sox

cd /opt

6)

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

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

emerge adobe-flash

Prepare this plugin for Firefox. Please, change you-user by your real user name:

mkdir /home/you-user/.mozilla/plugins

ln -s /usr/lib64/nsbrowser/plugins/libflashplayer.so /home/you-user/.mozilla/plugins

7)

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

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

emerge glibc faac faad2 gsm imlib2 cmake curl git mercurial yasm

The ffmpeg compilation it is based on this url, updated file versions 25-2-2018:

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

I made a script that will download, compile and install ffmpeg. It is tested and works ok.
The result of any recordings we do in OpenMeetings, will be in mp4 format.

When the compilation be finished, will appear a text announces it:

<p style="text-align:center">FFMPEG Compilation is Finished!</p>

So, download the script:

cd /opt

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

...concede execution permission to it:

chmod +x ffmpeg-archlinux.sh

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

./ffmpeg-archlinux.sh

The compilation will spend about 25 minutes.

When finished, please go to **step 8).**

But if you prefer, can copy and paste, though i **don´t advise.**
Leave here the commands script:

nano /opt/ffmpeg-arch.sh

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


```
# Script ffmpeg compile for Arch Linux and Gentoo
# Alvaro Bustos, thanks to Hunter.
# Updated 25-2-2018

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

# Download the necessary sources.
```

```
# git clone --depth 1 git://git.videolan.org/x264
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
wget https://sources.voidlinux.eu/opus-1.2.1/opus-1.2.1.tar.gz
wget http://downloads.xiph.org/releases/ogg/libogg-1.3.2.tar.gz
wget 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
wget http://ffmpeg.org/releases/ffmpeg-3.4.2.tar.gz

# 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-arch.sh
```

```
cd /opt
```

Now be connected to Internet, run the script and wait about 30 minutes while the compilation is finished:

```
./ffmpeg-arch.sh
```

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

8)

------ Installation of MariaDB data server ------

MariaDB is the data server. We install it:

```
emerge mariadb
```


ATTENTION! When MariaDB installation is finished, a lines before the last, in the shell, is a command tha we need to copy and run. Actualy is this, please check it, and if is the same run it:

emerge --config =dev-db/mariadb-10.0.29

...will ask for a new root mariadb password. Choose one you like it and type it twice.

Run MariaDB:

/etc/init.d/mysql start

...and access to MariaDB:

mysql -u root -p

...will ask for the password you does just now.

We make a database called open402, for OpenMeetings:

MariaDB [(none)]> CREATE DATABASE open402 DEFAULT CHARACTER SET 'utf8';

Now we create a user for open402 database. User password must be of 8 digits minimum:

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open402.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;

                        * open402 .... name of the database
                        * hola   .... user for that database
                        * 1a2B3c4D ....password of this user

You can change the data, but...remember it! Later we´ll need it.
We exit MariaDB:

MariaDB [(none)]> quit

9)

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

We´ll install OpenMeetings in /opt/red5402. All the following information will be based on this directory.

Call to our folder of installation red5402

Make that folder:

mkdir /opt/red5402

cd /opt/red5402

...and download the OpenMeetings file:

wget http://apache.miloslavbrada.cz/openmeetings/4.0.2/bin/apache-openmeetings-4.0.2.zip

unzip apache-openmeetings-4.0.2.zip

...save the unloaded file to /opt:

mv apache-openmeetings-4.0.2.zip /opt

Download and install the connector between OpenMeetings and MariaDB:

cd /opt

(Only one line without space between both)

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.45/mysql-connector-java-5.1.45.jar

...and copy it to where must be:

cp /opt/mysql-connector-java-5.1.45.jar /opt/red5402/webapps/openmeetings/WEB-INF/lib

Now we are going to configure OpenMeetings for our database in MariaDB:

nano /opt/red5402/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

Modify in line 72:

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

...to

, Url=jdbc:mysql://localhost:3306/open402?

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

Press on keyboard, **Ctrl**+**x**, **Y** and **Enter,** to save changes and exit nano editor.

Logically, if initially you choose another user name, password or database name, you will change them here.

Protect the access to the file:

(Only one line without space between both)

chmod 6402 /opt/red5402/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

10)

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

Download the script to 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/

...concede execution permission:

chmod +x /etc/init.d/red5-2

If you would made the installation in any other different path to /opt/red5402, please edit the script and modify the line:

RED5_HOME=/opt/red5402

...to

RED5_HOME=/your-path-installation

11)

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

Restart MariaDB:

/etc/init.d/mysql restart

...and run red5-OpenMeetings. Please, open a new terminal as root, and be connected to Internet, so the running will be quick:

/etc/init.d/red5-2 start

...wait untill the text "**CleanupJob.cleanRoomFiles**", it is the last in the shell. Then, go with the browser to:

Pag 9

http://localhost:5080/openmeetings/install

...there will appear 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 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 `Apache Derby`

Specify the name of the database `openmeetings`

`Check`

`<` `>` `>>` `Finish`

...so, 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   MYSQL
Specify DB host   localhost
Specify DB port   3306
Specify the name of the database   open402
Specify DB user
Specify DB password

Check

< > >> Finish

...and will show the database configuration we made in the step 9.

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 8, and his password:

Specify DB user   =   hola

Specify DB password   =   1a2B3c4D

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 will be administrator.
>
> **Userpass**   =   a-password ...for the previous user.
>
> **Email**   =   email-adress ...of this 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	🟩
Send Email to new registered Users	🟥
New Users need to verify their EMail	🟥
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	🟩
Mail-Referer	noreply@openmeetings.apache.org
SMTP-Server	localhost
SMTP-Server Port(default Smtp-Server Port is 25)	25
SMTP-Username	
SMTP-Userpass	
Enable TLS in Mail Server Auth	🟥
Set inviter's email address as ReplyTo in email invitations	🟩
Default Language	inglés

`<` `>` `>>` `Finish`

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 Mail Server Auth	==	...turn green the button to activate

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

Default Language	==	...select your language

...the rest you can change it as you like.

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

OpenMeetings

Converters

Document conversion DPI ⓘ	150	
Document conversion JPEG Quality ⓘ	90	
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:

ImageMagick Path   ==   /usr/bin
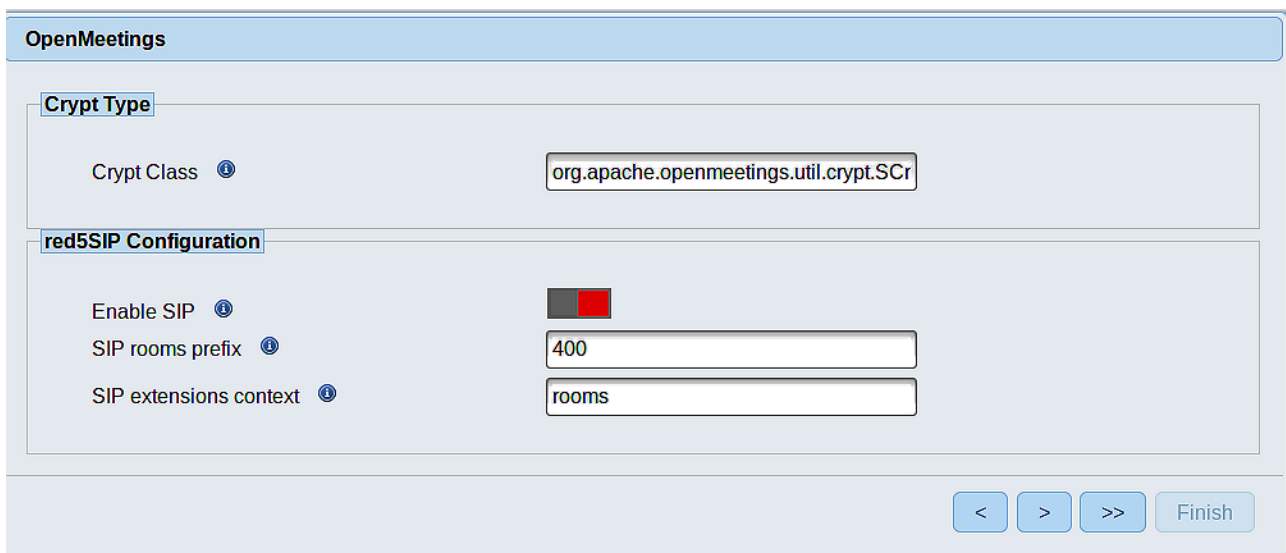
FFMPEG Path   ==   /usr/local/bin

SOX Path   ==   /usr/bin

OpenOffice/LibreOffice Path for
jodconverter   ==   /usr/lib64/libreoffice

As you go introducing routes, 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:

OpenMeetings

Crypt Type

Crypt Class   org.apache.openmeetings.util.crypt.SCr

red5SIP Configuration
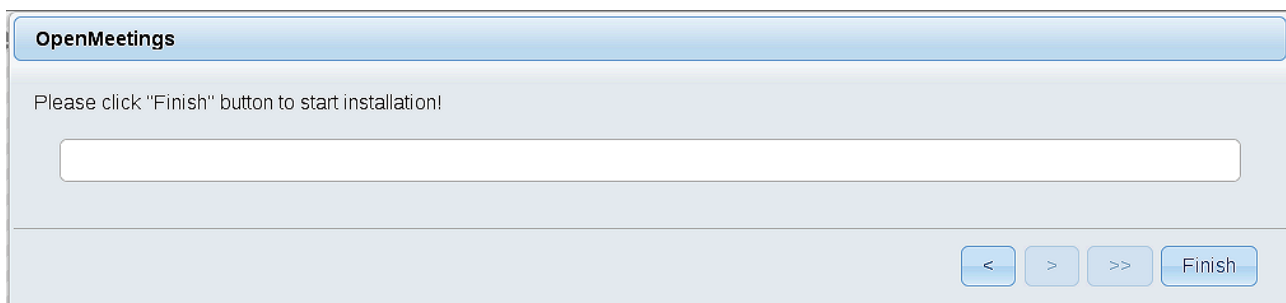
Enable SIP

SIP rooms prefix   400

SIP extensions context   rooms

[<] [>] [>>] [Finish]

Now, touch the button [>] Will show this window:

OpenMeetings

Please click "Finish" button to start installation!

[<] [>] [>>] [Finish]

Press **Finish** button...wait a seconds untill the tables are fill in our database.

When is concluded, this another page will appear. Don´t clic on **Enter the Application**.
First is need it to restart red5 server. Please, be connectd to Internet. Open a new terminal as root:

/etc/init.d/red5-2 restart

OpenMeetings

Enter the Application

Database was changed, please restart application to avoid possible issues

If your Red5-Server runs on a different Port or on a different domain
alter the config values of the client

Mailing list

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

There are some companies that also offer commercial support for Apache OpenMeetings:

http://openmeetings.apache.org/commercial-support.html

`<` `>` `>>` `Finish`

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:

Login

Username or mail address [_____]

Password [_____]

☐ Remember login

Forgotten your password?   Network testing

Not a member?   Sign in

Introduce the user's name and the password, that you have choosen during the installation, push **Sign in** button, and…

<p align="center">...**Congratulations!**</p>

The next time that you like to accede OpenMeetings, would be:

<p align="center">http://localhost:5080/openmeetings</p>

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

<p align="center">**1935   5080**</p>

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

12)

<p align="center">**------ OpenMeetings's configuration ------**</p>

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

<p align="center">**Administration → Configuration**</p>

...and following the order of the red arrows:

And this 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