

# Installation of Apache OpenMeetings 4.0.4 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 4.0.4 stable, that is to say will suppress his compilation. It is done step by step.

25-5-2018

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 **4.0.4**. We'll install Oracle Java.

cd /usr/portage/distfiles

...download the java file:

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

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/8u181-b13/96a7b8442fe848ef90c96a2fad6ed6d1/jdk-8u181-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 ghostscrip

----- 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 25-5-2018:

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:

#### FFMPEG Compilation is Finished!

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).

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. Actually 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 open404, for OpenMeetings:

MariaDB [(none)]> CREATE DATABASE open404 DEFAULT CHARACTER SET 'utf8';

Now we create a user for open404 database. User password must be of 8 digits minimum:

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open404.\* TO 'hola'@'localhost' IDENTIFIED BY 'la2B3c4D' WITH GRANT OPTION;

\* open404 ..... 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/red5404. All the following information will be based on this directory.

Call to our folder of installation red5404

Make that folder:

mkdir /opt/red5404

cd /opt/red5404

...and download the OpenMeetings file:

wget http://archive.apache.org/dist/openmeetings/4.0.4/bin/apache-openmeetings-4.0.4.zip unzip apache-openmeetings-4.0.4.zip

...save the unloaded file to /opt:

mv apache-openmeetings-4.0.4.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/5.1.46/mysql-connector-java-5.1.46.jar

...and copy it to where must be:

cp /opt/mysql-connector-java-5.1.46.jar /opt/red5404/webapps/openmeetings/WEB-INF/lib

## 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/red5404, please edit the script and modify the line:

RED5\_HOME=/opt/red5404

...to

 $RED5\_HOME=/your-path-installation$ 

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# ------ 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:

http://localhost:5080/openmeetings/install

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

| OpenMeetings   |  |  |  |
|--|--|--|--|
| <ul> <li>1. Enabling import of PDFs into whiteboard         <ul> <li>Install GhostScript on the server, you can get more information on <u>http://pages.cs.wisc.edu/~ghost/</u> 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).</li> </ul> </li> </ul> |  |  |  |
| 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):

11)

| Pag | 7 |
|-----|---|
|     |   |

| OpenMeetings   |
|--|
| DB configuration   |
| Recommendation for production environment  |
| By default OpenMeetings uses the integrated <u>Apache Derby</u> database. For production environment you should consider using <u>MySQL</u> , <u>PostgreSql</u> , <u>IBM DB2</u> , <u>MSSQL</u> or <u>Oracle</u> |
| 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 <u>Apache Derby</u> database. For production environment you should consider using <u>MySQL</u> , <u>PostgreSql</u> , <u>IBM DB2</u> , <u>MSSQL</u> or <u>Oracle</u> |
| NOTE Please use unpredictable DB login and 'strong' password with length 8 characters or more.   |
| Choose DB type MySQL T   |
| Specify DB host localhost  |
| Specify DB port 3306   |
| Specify the name of the database openmeetings  |
| Specify DB user  |
| Specify DB password  |
| Check  |
| < > >> Finish  |

Now we must introduce the database name, user name and his password user name we did at the step 8, and his password:

# **Specify the name of the database** = open404

**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-namethis user will be administrator.    |
|-----------|----|---|
| Userpass  | =  | a-password for the previous user.         |
| Email     | =  | email-adress of this previous user.       |
| User Time | Zo | <b>ne</b> = country where is this server. |
| Name      | =  | example-openmeetingsgroup 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:

| Ор | enMeetings  |                                 |
|----|---|---------------------------------|
| _( | Configuration   |                                 |
|    | Allow self-registering<br>Send Email to new registered Users  |                                 |
|    | New Users need to verify their EMail<br>Default DB objects of all types will be created<br>(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<br>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<br>(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 (1)                    | 150 |               |  |
| Document conversion JPEG Quality 0             | 90  |               |  |
| ImageMagick Path 🔞                             |     | Check         |  |
| FFMPEG Path 🔞                                  |     | Check         |  |
| SoX Path 🐠                                     |     | Check         |  |
| OpenOffice/LibreOffice Path for jodconverter 0 |     | Check         |  |
| see also <u>Installation</u>                   |     |               |  |
|  |     | < > >> 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<br>jodconverter == /usr/lib64/l |    |                |

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 0     | 400                                    |               |
| SIP extensions context | rooms                                  |               |
|                        |  |               |
|                        |  | < > >> Finish |

Now, touch the button is 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 <u>Enter the Application</u>. 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



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<br>Password<br>Forgotten your password? | Remember login        |
|  | lot a member? Sign in |

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

# ...Congratulations!

The next time that you like to accede 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 Internet.

# 12)

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

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

## Administration $\rightarrow$ Configuration

| Home 🗸                  | Rooms 🗸   | Recordings - | Administration - |
|-------------------------|---|--------------|------------------|
| ♥ Welcome               |   |              | <b>•</b>         |
| <b>Upload new image</b> | <b>Hello firstna</b><br>Timezone Europ<br>Unread messag<br><u>Edit your profile</u> | jes <u>0</u> |                  |
| Help and support        |   |              |                  |

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

| mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | Search)<br>Value<br>org.apache.openmeetings.util.crypt.S<br>CryptImplementation<br>true<br>true<br>true<br>1<br>localhost<br>25<br>noreply@openmeetings.apache.org<br>false<br>30000 |  | 📚 🖶 💥   | Type<br>Key<br>Value<br>Last update<br>Updated by  | Oct 17, 2017 5:54:57   | PM   | ×   |
|---|--|--|---|--|--|--|---|
| crypt.class.name<br>allow.frontend.register<br>allow.soap.register<br>allow.oauth.register<br>default.group.id<br>mail.smtp.server<br>mail.smtp.port<br>mail.smtp.user<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout | org.apache.openmeetings.util.crypt.S<br>CryptImplementation<br>true<br>true<br>1<br>localhost<br>25<br>noreply@openmeetings.apache.org   |  | Configura   | Type<br>Key<br>Value<br>Last update<br>Updated by  | / path.ffmpeg<br>Cot 17, 2017 5:54:57<br>toro  | PM   |   |
| allow.frontend.register<br>allow.soap.register<br>allow.oauth.register<br>default.group.id<br>mail.smtp.server<br>mail.smtp.port<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout                                       | Cryptimplementation<br>true<br>true<br>true<br>1<br>localhost<br>25<br>noreply@openmeetings.apache.org<br>false  |  |   | Key<br>Value<br>Last update<br>Updated by  | / path.ffmpeg<br>Cot 17, 2017 5:54:57<br>toro  | PM   | <u> </u>  |
| allow.soap.register<br>allow.oauth.register<br>default.group.id<br>mail.smtp.server<br>mail.smtp.port<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout  | true<br>true<br>1<br>localhost<br>25<br>noreply@openmeetings.apache.org<br>false   |  |   | Value<br>Last update<br>Updated by   | e Oct 17, 2017 5:54:57   | PM   |   |
| allow.oauth.register<br>default.group.id<br>mail.smtp.server<br>mail.smtp.port<br>mail.smtp.user<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | true<br>1<br>localhost<br>25<br>noreply@openmeetings.apache.org<br>false   |  |   | Last update<br>Updated by  | Oct 17, 2017 5:54:57<br>toro   | PM   |   |
| default.group.id<br>mail.smtp.server<br>mail.smtp.port<br>mail.smtp.system.email<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | 1<br>localhost<br>25<br>noreply@openmeetings.apache.org<br>false   |  |   | Updated by   | toro   | PM   |   |
| mail.smtp.server<br>mail.smtp.port<br>mail.smtp.system.email<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | localhost<br>25<br>noreply@openmeetings.apache.org<br>false  |  |   | • •  |  |  |   |
| mail.smtp.port<br>mail.smtp.system.email<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | 25<br>noreply@openmeetings.apache.org<br>false   |  |   | Comment  | t Path To FFMPEG   |  |   |
| mail.smtp.system.email<br>mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | noreply@openmeetings.apache.org  |  |   |  |  |  |   |
| mail.smtp.user<br>mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   | false  |  |   |  |  |  |   |
| mail.smtp.pass<br>mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   |  |  |   | 1  |  |  | .:  |
| mail.smtp.starttls.enabl<br>e<br>mail.smtp.connection.ti<br>meout   |  |  |   | 1  |  |  |   |
| e<br>mail.smtp.connection.ti<br>meout   |  |  |   | \  |  |  |   |
| meout   | 30000  |  |   | $\backslash$   |  |  |   |
| mail ante tim a aut   |  |  |   | $\backslash$   |  |  |   |
| mail.smtp.timeout   | 30000  | $\sim$   |   |  |  |  |   |
| application.name  | OpenMeetings   |  |   | \  |  |  |   |
| default.lang.id   | 8  | _  |   | 3  |  |  |   |
| document.dpi  | 150  |  |   |  |  |  |   |
| document.quality  | 90   | _  |   |  |  |  |   |
| path.imagemagick  |  |  |   |  |  |  |   |
| path.sox  |  | _  |   |  |  |  |   |
| path.ffmpeg   |  | ◀  |   | <u> </u>   |  | 2  |   |
| path.office   |  |  |   |  |  |  |   |
| dashboard.rss.feed1   | http://mail-archives.apache.org<br>/mod_mbox/openmeetings-   |  |   |  |  |  |   |
| dashboard.rss.feed2   | http://mail-archives.apache.org  |  |   |  |  |  |   |
|   | dev/?format=atom   |  |   |  |  |  |   |
| send.email.at.register  | false  |  |   |  |  |  |   |
| send.email.with.verficat  | false  | ~  |   |  |  |  |   |
| d<br>d  | ath.office<br>ashboard.rss.feed1<br>ashboard.rss.feed2<br>end.email.at.register<br>end.email.with.verficat   | ath.office http://mail-archives.apache.org<br>lashboard.rss.feed1 /mod_mbox/openmeetings-<br>user/?format=atom<br>http://mail-archives.apache.org<br>/mod_mbox/openmeetings-<br>dev/?format=atom<br>end.email.at.register false<br>end.email.with.verficat false | ath.office http://mail-archives.apache.org<br>lashboard.rss.feed1 /mod_mbox/openmeetings-<br>user/?format=atom<br>http://mail-archives.apache.org<br>/mod_mbox/openmeetings-<br>dev/?format=atom<br>end.email.at.register false | ath.office http://mail-archives.apache.org<br>lashboard.rss.feed1 /mod_mbox/openmeetings-<br>user/?format=atom<br>http://mail-archives.apache.org<br>/mod_mbox/openmeetings-<br>dev/?format=atom<br>end.email.at.register false<br>end.email.with.verficat false | ath.office http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom end.email.at.register false end.email.with.verficat false | ath.office http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom end.email.at.register false false | ath.office http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom http://mail-archives.apache.org //mod_mbox/openmeetings-<br>user/?format=atom http://mail-archives.apache.org //mod_mbox/openmeetings-<br>dev/?format=atom end.email.at.register false false |

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

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Thank you.

Alvaro Bustos