



## **Installation of Apache OpenMeetings 4.0.11 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 4.0.11 stable, that is to say will suppress his compilation. It is done step by step.

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 it is necessary for OpenMeetings 4.0.11. We'll install Oracle Java 1.8:

```
cd /usr/portage/distfiles
```

...download the java file:

(Only one line without space between both)

```
wget https://github.com/frekele/oracle-java/releases/download/8u212-b10/jdk-8u212-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
```

...we select the just installed Oracle Java 1.8:

```
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 ghostscript
```

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 and audio. 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:

<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. 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 open4011, for OpenMeetings:

MariaDB [(none)]> `CREATE DATABASE open4011 DEFAULT CHARACTER SET 'utf8';`

Now we create a user for open4011 database. User password must be of 8 digits minimum:

(Only one line with space between both)

MariaDB [(none)]> `GRANT ALL PRIVILEGES ON open4011.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;`

\* `open4011` ..... 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/red54011. All the following information will be based on this directory.

Call to our folder of installation red54011

Make that folder:

`mkdir /opt/red54011`

`cd /opt/red54011`

...and download the OpenMeetings file:

```
wget https://archive.apache.org/dist/openmeetings/4.0.11/bin/apache-openmeetings-4.0.11.tar.gz
```

```
tar xzvf apache-openmeetings-4.0.11.tar.gz
```

...save the unloaded file to /opt:

```
mv apache-openmeetings-4.0.11.tar.gz /opt
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.49/mysql-connector-java-5.1.49.jar
```

...and copy it to where must be:

```
cp /opt/mysql-connector-java-5.1.49.jar /opt/red54011/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/red54011, please edit the script and modify the line:

```
RED5_HOME=/opt/red54011
```

...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 about 30 seconds and go with the browser to:

<http://localhost:5080/openmeetings>

...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

Specify the name of the database

...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

Specify DB host

Specify DB port

Specify the name of the database

Specify DB user

Specify DB password


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

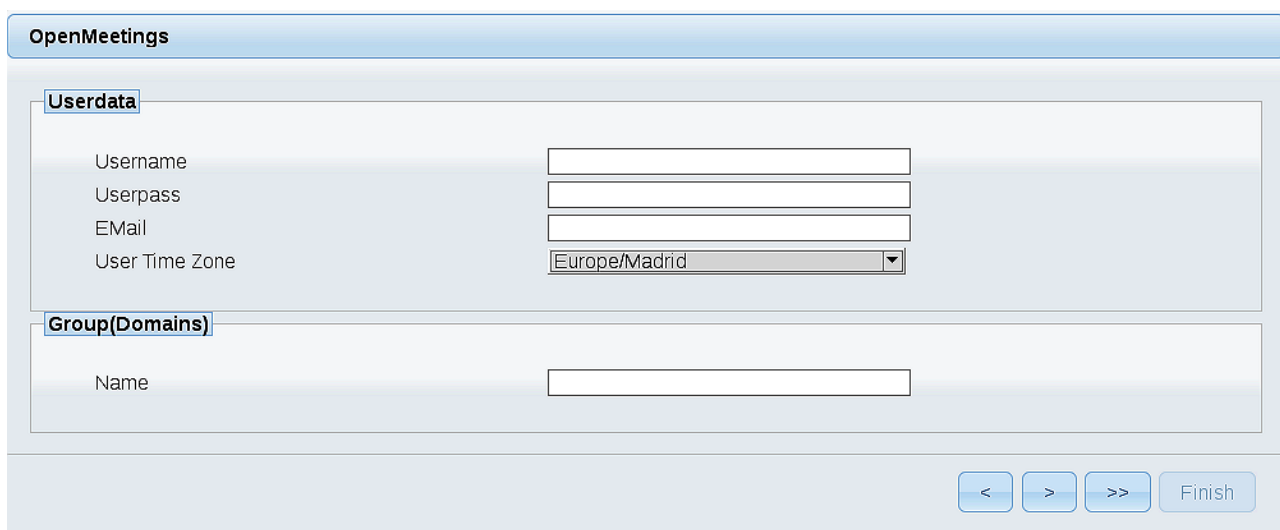


Specify the name of the database = open4011

Specify DB user = hola

Specify DB password = 1a2B3c4D

Please, press  button, and will go to:



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	<input checked="" type="checkbox"/>
Send Email to new registered Users	<input type="checkbox"/>
New Users need to verify their EMail	<input type="checkbox"/>
Default DB objects of all types will be created (including Rooms, OAuth2 servers etc.)	<input checked="" type="checkbox"/>
Mail-Referer	<input type="text" value="noreply@openmeetings.apache.org"/>
SMTP-Server	<input type="text" value="localhost"/>
SMTP-Server Port(default SmtP-Server Port is 25)	<input type="text" value="25"/>
SMTP-Username	<input type="text"/>
SMTP-Userpass	<input type="text"/>
Enable TLS in Mail Server Auth	<input type="checkbox"/>
Set inviter's email address as ReplyTo in email invitations	<input checked="" type="checkbox"/>
Default Language	<input type="text" value="inglés"/>


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

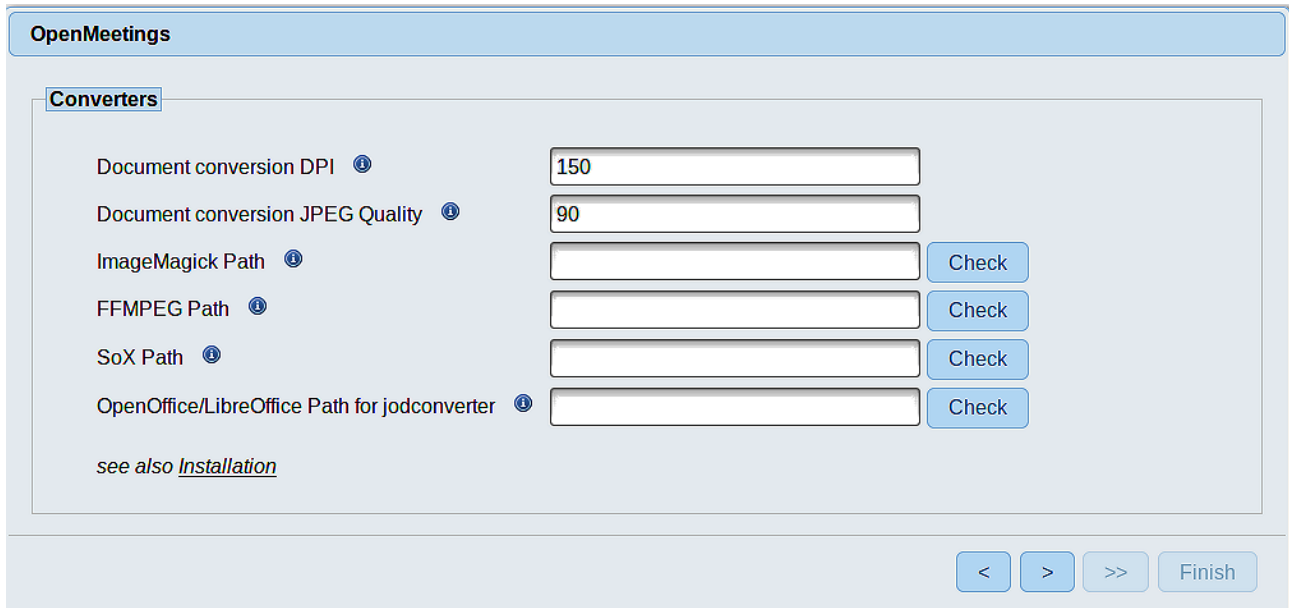
<b>Mail-Refer</b>	==	<a href="#">john@gmail.com</a>
<b>SMTP-Server</b>	==	<a href="#">smtp.gmail.com</a>
<b>SMTP-Server Port (default SmtP-Server Port is 25)</b>	==	<a href="#">587</a>
<b>SMTP-Username</b>	==	<a href="#">john@gmail.com</a>
<b>SMTP-Userpass</b>	==	<a href="#">password of john@gmail.com</a>
<b>Enable TLS in Mail Server Auth</b>	==	<a href="#">...turn green the button to activate</a>

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

<b>Default Language</b>	==	<a href="#">...select your language</a>
-------------------------	----	---

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

Now press the button  and a new page will appear:



**OpenMeetings**

**Converters**

Document conversion DPI ⓘ

Document conversion JPEG Quality ⓘ

ImageMagick Path ⓘ

FFMPEG Path ⓘ

SoX Path ⓘ

OpenOffice/LibreOffice Path for jodconverter ⓘ

*see also [Installation](#)*

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:

The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and two main sections:

- Crypt Type**: Contains a label 'Crypt Class' with an information icon and a text input field containing 'org.apache.openmeetings.util.crypt.SCr'.
- red5SIP Configuration**: Contains three items:
  - 'Enable SIP' with a checked checkbox.
  - 'SIP rooms prefix' with an information icon and a text input field containing '400'.
  - 'SIP extensions context' with an information icon and a text input field containing 'rooms'.

At the bottom right, there are four buttons: '<', '>', '>>', and 'Finish'.

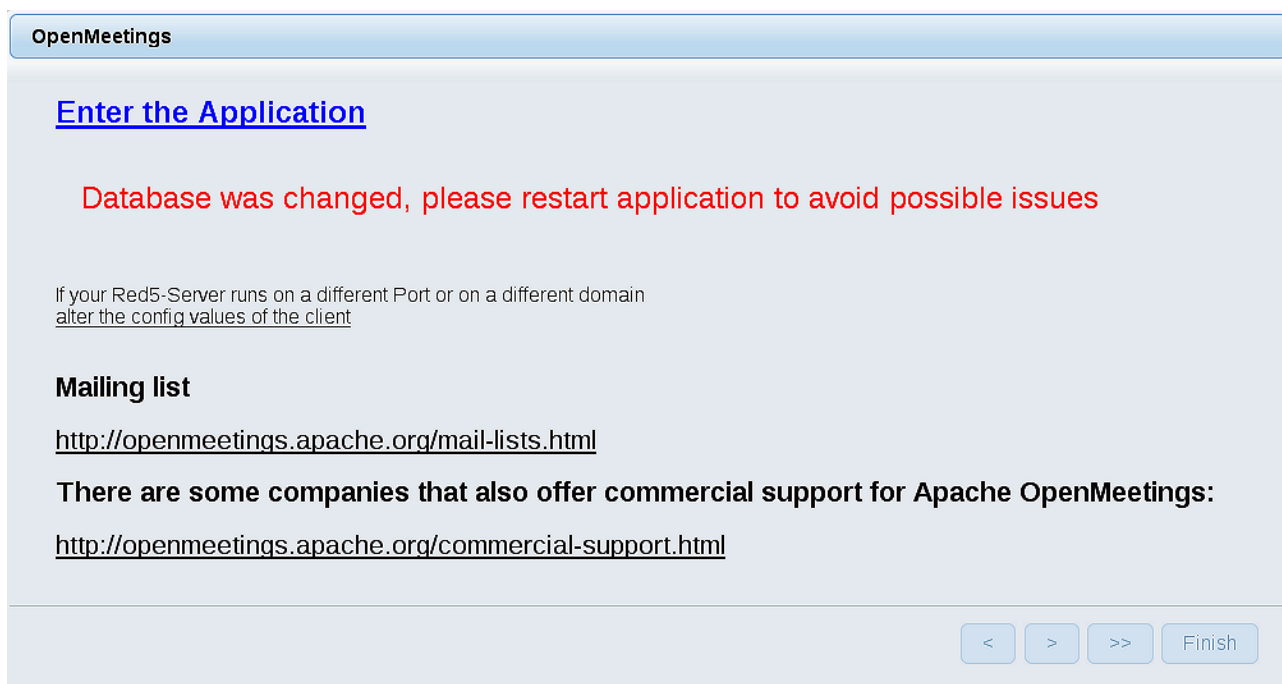
Now, touch the button  Will show this window:

The screenshot shows the 'OpenMeetings' window after clicking the next button. The title bar is 'OpenMeetings'. The main content area contains the text 'Please click "Finish" button to start installation!' and a large empty text input field. At the bottom right, there are four buttons: '<', '>', '>>', and '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](#)



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:

The screenshot shows a "Login" form. It has a blue header bar with the text "Login". Below the header, there are two input fields: "Username or mail address" and "Password". To the right of the "Password" field is a checkbox labeled "Remember login". Below the input fields, there are two links: "[Forgotten your password?](#)" and "[Network testing](#)". At the bottom, there are two buttons: "Not a member?" and "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**

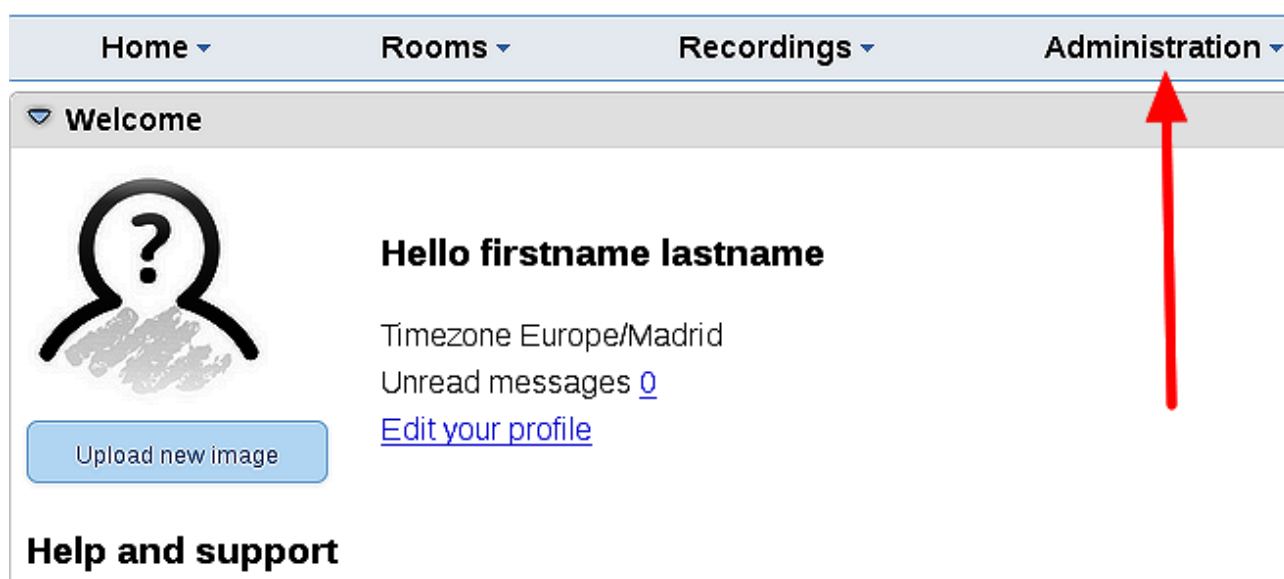
...in order that it could accede to OpenMeetings from other machines in Lan or Internet.

12)

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

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

**Administration → Configuration**



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

The screenshot shows the Administration section of the OpenMeetings web interface. On the left is a table of configuration items, and on the right is a detailed view of a selected configuration item.

ID	Key	Value
1	crypt.class.name	org.apache.openmeetings.util.crypt.SCryptImplementation
2	allow.frontend.register	true
3	allow.soap.register	true
4	allow.oauth.register	true
5	default.group.id	1
6	mail.smtp.server	localhost
7	mail.smtp.port	25
8	mail.smtp.system.email	noreply@openmeetings.apache.org
9	mail.smtp.user	
10	mail.smtp.pass	
11	mail.smtp.starttls.enable	false
12	mail.smtp.connection.timeout	30000
13	mail.smtp.timeout	30000
14	application.name	OpenMeetings
15	default.lang.id	8
16	document.dpi	150
17	document.quality	90
18	path.imagemagick	
19	path.sox	
20	path.ffmpeg	
21	path.office	
22	dashboard.rss.feed1	http://mail-archives.apache.org/mod_mbox/openmeetings-user/?format=atom
23	dashboard.rss.feed2	http://mail-archives.apache.org/mod_mbox/openmeetings-dev/?format=atom
24	send.email.at.register	false
25	send.email.with.verification	false

The configuration detail panel for 'path.ffmpeg' shows:

- Type: string
- Key: path.ffmpeg
- Value: (empty)
- Last update: Oct 17, 2017 5:54:57 PM
- Updated by: toro
- Comment: Path To FFMPEG

Red arrows indicate the flow of information: arrow 1 points from the table row 20 to the configuration panel; arrow 2 points from the configuration panel back to the table; arrow 3 points from the configuration panel to the table header.

13)

----- Ghostscript compilation and ImageMagick modify -----

By a script we should compile Ghostscript 9.27, free of security hole:

```
cd /opt
```

```
wget https://cwiki.apache.org/confluence/download/attachments/27838216/ghostscript.sh
```

```
chmod +x ghostscript.sh
```

...and run it:

```
./ghostscript.sh
```

...when be finished will announce it: **GhostScript compilation is Finished!**

```
rm -Rf /opt/ghostscript-9.27
```

Now we modify ImageMagick, so OpenMeetings can upload office files to whiteboard:

```
nano /etc/ImageMagick-6/policy.xml
```

...and comment out the two follow lines, near to bottom file:

```
<policy domain="coder" rights="none" pattern="PS" />  
<policy domain="coder" rights="none" pattern="PDF" />
```

...to:

```
<!-- <policy domain="coder" rights="none" pattern="PS" /> -->  
<!-- <policy domain="coder" rights="none" pattern="PDF" /> -->
```

Press in the keyboard **Ctrl+x**, will ask to save, press **Y**, and press **Enter** to exit nano editor.

This last must be repeated every time you update system-ImageMagick.

-----

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

<https://openmeetings.apache.org/mailling-lists.html>



Also you can download if you like, a wallpaper of OpenMeetings for different devices such as:

PC, Mac, Smartphone, iPhone and Tablets. Here is the link to download:

[OpenMeetings Wallpaper Download](#)

A dvd live iso with OpenMeetings 4.0.11 on Ubuntu 18.04 lts and other OpenMeetings 5.0.1 on Ubuntu 18.04 lts, is at your disposal.



Can find them here:

[Live iso download](#)

Thank you.

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).