



## **Installation of Apache OpenMeetings 4.0.10 on Ubuntu 19.04**

The present tutorial is made based on a minimal fresh installations of

**ubuntu-mate-19.04-desktop-amd64.iso**

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.10 stable, that is to say will suppress his compilation. It is done step by step.

14-12-2019

Starting...

1)

First, we update and upgrade the OS:

```
sudo apt update
```

```
sudo apt upgrade
```

2)

----- Installation of OpenJava -----

OpenMeetings 4.0.10 need Java to work. So, we install OpenJava 11:

```
sudo apt install openjdk-11-jdk openjdk-11-jdk-headless
```

...and his plugin for web:

```
sudo apt install icedtea-netx
```

Now, please, select OpenJava 11 if is more than one installed version:

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

To see the active java version:

```
java -version
```

3)

#### ----- Installation of LibreOffice -----

LibreOffice is need it to convert to pdf the uploaded office files.

The ubuntu desktop iso have already LibreOffice installed.

But we install it specially for server iso:

```
sudo add-apt-repository ppa:libreoffice/ppa
```

```
sudo apt update
```

```
sudo apt install libreoffice
```

4)

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

**ImageMagick**, will work the image files, png, jpg, gif, etc. Will install it and some more libraries and paquets:

```
sudo apt install -y imagemagick libjpeg62 zlib1g-dev
```

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

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

...and comment the two following 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 the ImageMagick, or maybe will ask you if “Keep” the policy.xml file that is installed (modified by us), then press “Keep” button.

**Sox**, work the sound. We install it:

```
sudo apt install sox
```

5)

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

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

```
sudo apt install flashplugin-installer
```

6)

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

FFmpeg will work the video. This compilation is based on:

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

Install some paquets and libraries we need:

(Only one line with space between each one)

```
sudo apt -y --force-yes install autoconf automake build-essential libass-dev libfreetype6-dev
libgpac-dev libsdl1.2-dev libtheora-dev libtool libva-dev libvdpau-dev libvorbis-dev libxcb1-dev
libxcb-shm0-dev libxcb-xfixes0-dev pkg-config texi2html zlib1g-dev nasm libx264-dev cmake
mercurial libopus-dev curl git vlc unzip make build-essential wget nmap
```

I made a script that will download, compile and install ffmpeg.

The result of any recording we do in OpenMeetings will be in mp4 format.

Please, download the script:

```
cd /opt
```

(Only one line without space between both)

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

...concede permission of execution:

```
sudo chmod +x ffmpeg_UbunDebi.sh
```

...and run it (be connected to Internet). The compilation will spend about 20-30 minutes:

```
sudo ./ffmpeg_UbunDebi.sh
```

When finish the compilation, a text will announce it:

**FFmpeg Compilation is Finished!**

...then please go to **step 7**).

7)

----- **Installation and configuration of MariaDB data server** -----

**MariaDB** is the data server. Will install it. (Version 10.x):

```
sudo apt install mariadb-server
```

Run MariaDB:

```
sudo /etc/init.d/mysql start
```

Now we give a root password to MariaDB. Please, replace **new-password** with your own:

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

Make a database with his own user for OpenMeetings:

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

...will ask for the root password that you have just chosen, type it...

```
MariaDB [(none)]> CREATE DATABASE open4010 DEFAULT CHARACTER SET 'utf8';
```

With this command we has created a database called open4010.

Now we create an user on this database. User password must be of 8 digits minimum:

(Only one line with space between both)

```
MariaDB [(none)]> GRANT ALL PRIVILEGES ON open4010.* TO 'hola'@'localhost'
IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;
```

- \* `open4010` .....is the database name.
- \* `hola` .....is the user name for this database.
- \* `1a2B3c4D` ..is the password for this user.

You can change the data...but remember it! Later we'll need it.  
Now, we leave MariaDB:

```
MariaDB [(none)]> quit
```

8)

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

We'll install OpenMeetings in `/opt/red54010`. All the following information will be based on this directory.

Make the folder:

```
sudo mkdir /opt/red54010
```

```
cd /opt/red54010
```

...and download the red5-OpenMeetings file:

(Only one line without space between both)

```
sudo wget http://archive.apache.org/dist/openmeetings/4.0.10/bin/apache-openmeetings-4.0.10.tar.gz
```

```
sudo tar xzvf apache-openmeetings-4.0.10.tar.gz
```

...save the unloaded file to `/opt`:

```
sudo mv apache-openmeetings-4.0.10.tar.gz /opt
```

Do to **nobody** owner of the whole OpenMeetings folder installation, by security:

```
sudo chown -R nobody /opt/red54010
```

Download and install the connector between OpenMeetings and MariaDB:

```
cd /opt
```

(Only one line without space between both)

```
sudo wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.48/mysql-connector-  
java-5.1.48.jar
```

...and copy it to where must be:

```
sudo cp /opt/mysql-connector-java-5.1.48.jar /opt/red54010/webapps/openmeetings/WEB-INF/lib
```

9)

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

Please, download the red5 run script:

```
cd /opt
```

```
sudo wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-ubdeb2
```

...and copy it to:

```
sudo cp red5-ubdeb2 /etc/init.d/
```

...and concede permission of execution:

```
sudo chmod +x /etc/init.d/red5-ubdeb2
```

10)

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

Start MariaDB, if still it is not:

```
sudo /etc/init.d/mysql start
```

...and now start red5-OpenMeetings. Please, be connected to Internet:

```
sudo /etc/init.d/red5-ubdeb2 start
```

...will appear two text lines in the shell:

```
start-stop-daemon: --start needs --exec or --startas  
Try 'start-stop-daemon --help' for more information.
```

...you do nothing. Don't worry, everything work right,

...wait 40 seconds at least, in order that red5 runing completely. And after this, can go 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  button (bottom), and will show the default database 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

Check

< > >> Finish

...then, 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, we did at the step 7:

**Specify the name of the database** = **open4010**

**Specify DB user** = **hola**

**Specify DB password** = **1a2B3c4D**

...if you choose any other data, type it here.

Please, press

**OpenMeetings**

**Userdata**

Username

Userpass

E-Mail

User Time Zone

**Group(Domains)**

Name



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** = 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:

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

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

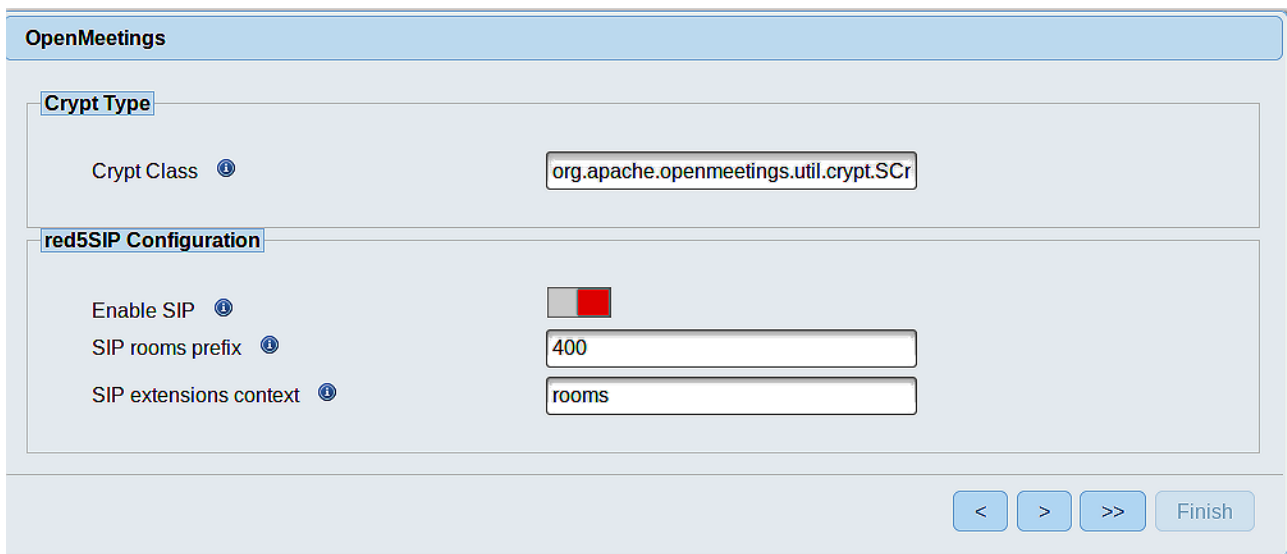
**FFMPEG Path** == /usr/local/bin

**SOX Path** == /usr/bin

**OpenOffice/LibreOffice Path for jodconverter** == /usr/lib/libreoffice (32bit - 64bit)

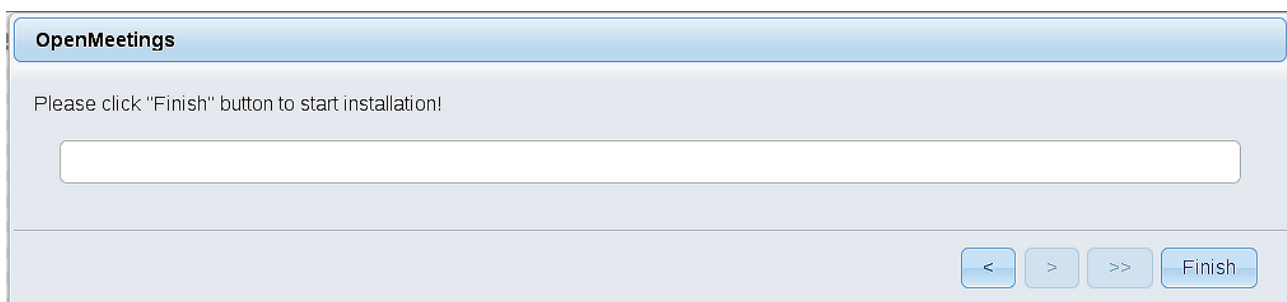
As you go introducing paths, you can check if they are correct by pressing the button labeled **Check**. If it does not display any error message, that is OK.

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:



The screenshot shows the 'OpenMeetings' configuration window. It has a title bar 'OpenMeetings' and a 'Crypt Type' section with a 'Crypt Class' field containing 'org.apache.openmeetings.util.crypt.SCr'. Below that is the 'red5SIP Configuration' section, which includes an 'Enable SIP' checkbox (checked), a 'SIP rooms prefix' field with '400', and a 'SIP extensions context' field with 'rooms'. At the bottom right, there are navigation buttons: '<', '>', '>>', and 'Finish'.

Now push the button  and will show this window:



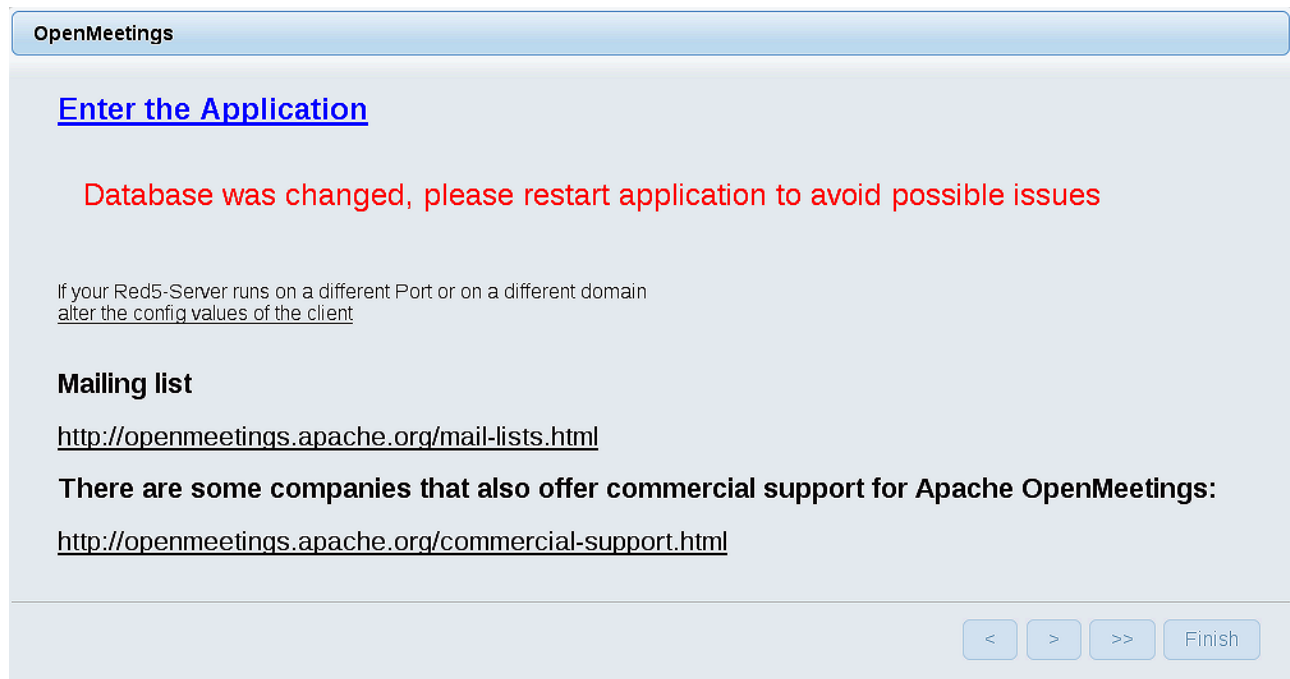
The screenshot shows the 'OpenMeetings' configuration window after clicking the next button. The title bar is 'OpenMeetings'. The main content area contains the text 'Please click "Finish" button to start installation!' and a large empty text input field. At the bottom right, there are navigation buttons: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

Press **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. Please, be connected to Internet:

```
sudo /etc/init.d/red5-ubdeb2 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:**

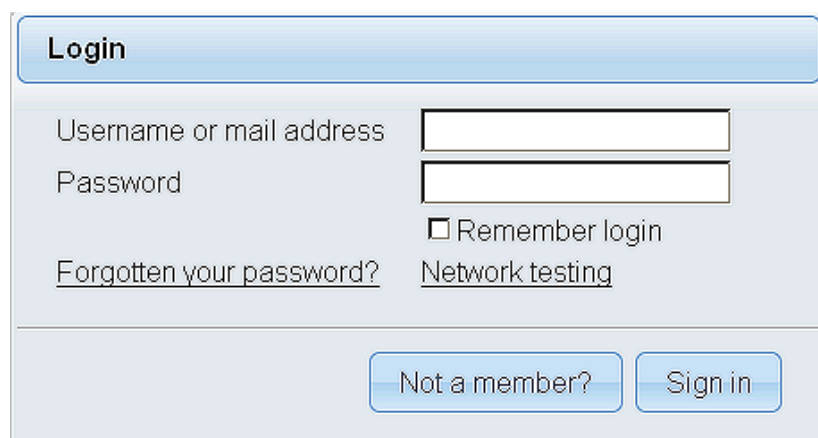
<http://openmeetings.apache.org/commercial-support.html>

< > >> 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 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**

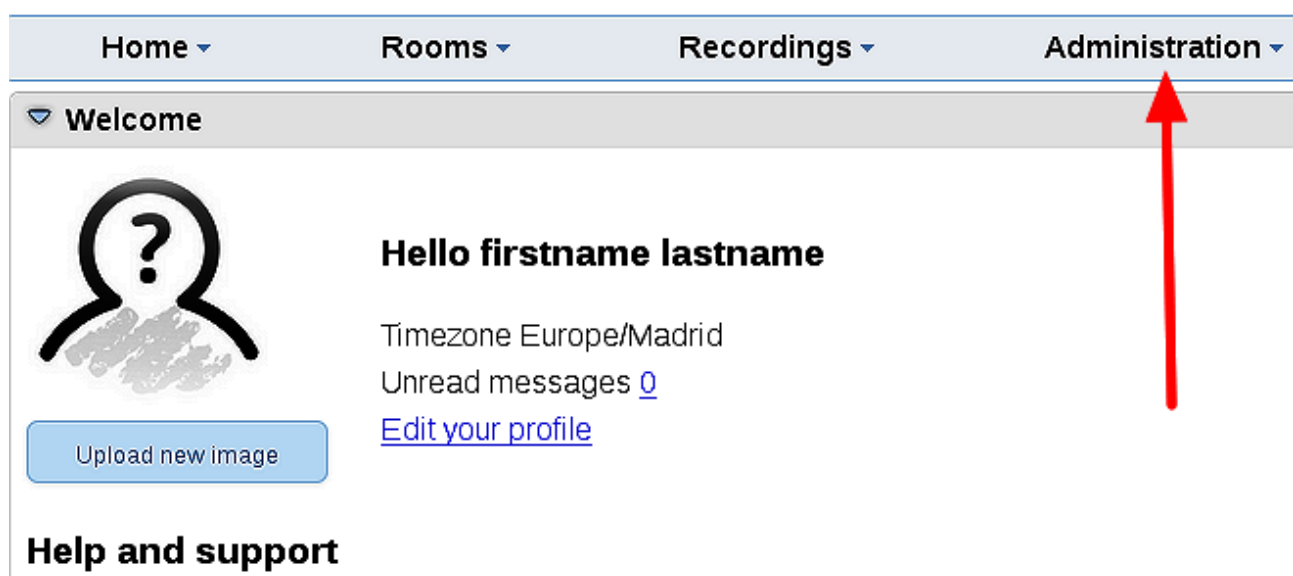
...in order that it could accede to OpenMeetings from other machines in LAN or Internet.

11)

----- **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 configuration form for the selected 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 form on the right shows the details for the selected 'path.ffmpeg' key:

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

Red arrows indicate the sequence of actions: 1 points to the 'path.ffmpeg' row in the table, 2 points to the 'Value' field in the configuration form, and 3 points to the 'Save' icon in the form's toolbar.

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

<http://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 4.0.10 on Ubuntu 18.04 lts is at your disposal.

Can find it here:

[Live iso download](#)

Thank you.

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).