Installation of Apache OpenMeetings 3.1.3 on PCLinuxOS 2016

pclinuxos64-mate-2016.07.iso

This tutorial is made based on fresh installations of
PCLinuxOS 2016 Mate.

It is tested with positive result. We will use the
Apache's binary version OpenMeetings 3.1.3 stable,
that is to say, will suppress his compilation.
It is done step by step**.**

28-9-2016

Starting…

1)

Update and upgrade the operative system. Please go to:

apt-get update

apt-get upgrade

2)

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

(Only one line with space between each one)

apt-get install -y libjpeg-progs giflib-progs freetype-devel gcc-c++ zlib1-devel libtool bison bison-static-devel file-roller ghostscript freetype unzip gcc ncurses make zlib1 bzip2 wget ghostscript ncurses zlib1 zlib1-devel x264-devel git make automake nasm pavucontrol rpm-installer freetype2 curl

3)

------ Installation of LibreOffice and Java Sun 1.8.x ------

When we install LibreOffice also will install automatically Java sun 1.8.x. OpenMeetings **3.1.3** need java **1.8** to work.

LibreOffice will convert to pdf the uploaded office files. We install it:

lomanager

...if show a message like this: *Please Update your system. (more details...)....*

...then please go to:

Synaptic --> Mark All Upgrades --> Apply --> Apply

...and we type in shell newly:

lomanager

...will show a window where select your locale language for LibreOffice, and after this answer yes or ok to any question.

Will start installing Java sun 1.8.x and continue with LibreOffice. If would not install java, you can do it:

apt-get install java-sun

Once the installation it is finished you can change the LibreOffice language interface in:

Tools --> Options --> Language settings --> Languages --> User interface (select your language) **--> OK**

LibreOffice (installed or updated 14-8-2016) is in: /opt/libreoffice5.2

4)

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

Flash player it is installed in Mate already, but not in KDE minimum. So will install it and firefox also, if you like it. Adobe Flash Player even is need it for rooms in OpenMeetings:

apt-get install -y firefox flash-player-plugin

5)

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

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

apt-get install ImageMagick

Sox, work the sound. It is installed, but we´ll uninstall it and compile a newer version than it is in the repo:

apt-get remove sox

...and download and compile the new version:

cd /opt

wget http://sourceforge.net/projects/sox/files/sox/14.4.2/sox-14.4.2.tar.gz

tar xzvf sox-14.4.2.tar.gz

cd /opt/sox-14.4.2

./configure

make && make install

Swftools. LibreOffice convert to pdf the office files uploaded, and Swftools convert these pdf to swf, flash files, that later will show in the whiteboard. Don´t install a newer version, surely will have not pdf2swf. We install it. Please, modify your_username to your real user name:

cd /home/your_username

...download it:

wget http://apt.sw.be/redhat/el6/en/x86_64/rpmforge/RPMS/swftools-0.9.1-1.el6.rf.x86_64.rpm

Please, go to your /home/your_username, and (be connected to Internet):

Right clic on the swftools-0.9.1-1.el6.rf.x86_64.rpm file --> **Open with** --> **RPM-installer** → will

ask for root password → push **Enter**

Now will block this swftools version in Synaptic and then can´t update installing a new version:

Synaptic → click on swftools line → Package (Up left) **--> Lock Version**

6)
------ Installation of Jodconverter ------

Jodconverter participate in the process to convert uploaded files. Install it:

cd /opt

(Only one line without space between both)

wget https://storage.googleapis.com/google-code-archive-downloads/v2/code.google.com/jodconverter/jodconverter-core-3.0-beta-4-dist.zip

unzip jodconverter-core-3.0-beta-4-dist.zip

7)
------ Remove, rename somes packages ------

We´ll install lame for mp3 audio:

apt-get install lame

We´ll remove ffmpeg that automatically was installed in Mate. In KDE minimum was not but to do it is not bad. Later we´ll build our own ffmpeg.

apt-get remove ffmpeg

...will remove automatically vokoscreen also.

Rename x264, that we´ll compile later:

mv /usr/bin/x264 /usr/bin/x264-synaptic

...because if we remove x264 will lose automatically too many packages.

Now will block this x264 version in Synaptic and then can´t update installing a new version:

Synaptic → click on x264 line → Package (Up left) **--> Lock Version**

8)

------ Compiling and installing FFmpeg ------

To compile and install ffmpeg, lame, yasm and x264, i´ve followed a guide with somes modifications. Files updated 12-9-2106:

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

Install a librarie need it for the compilation:

Modify your_username to your real user name:

cd /home/your_username

...download it:

(Only one line without space between both)

wget http://download.opensuse.org/repositories/home:/ganglia:/musescore2/SLE11/x86_64/libmp3lame-devel-3.99.5-2.1.x86_64.rpm

Please, go to your /home/your_username, and (be connected to Internet):

Right clic on the **libmp3lame-devel-3.99.5-2.1.x86_64.rpm** file --> **Open with** --> **RPM-installer** → will ask for root password → push **Enter**

The result of any recording we do in OpenMeetings, will be in avi, flv, mp4 and ogg formats.
For compile ffmpeg, i build a scrypt that will download, compile and install it.
Download it:

cd /opt

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

...concede perimission of execution:

chmod +x ffmpeg-pclinuxos.sh

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

./ffmpeg-pclinuxos.sh

The compilation spend about 25 minutes. When be finish, will announce it, with this text:

FFmpeg Compilation is finished!

Block in Synaptic: **ffmpeg** and **yasm** … *one by one*:

Synaptic → click on **ffmpeg** line → **Package** (up to left) --> **Lock Version**

…don´t worry if look the packages are not installed.

*This is very important***:** When you update or upgrade the operative system, please do it from Synaptic, so will respect the locked versions, thing that will do not if update or upgrade from the shell.

FFmpeg is installed in: /usr/local/bin

9)

------ Installation of MySQL and building database ------

We´ll employ MySQL server, for the database.

apt-get install -y mysql

...run mysql:

service mysqld start

...we do a mysql upgrade:

mysql_upgrade

...and give a root mysql password remplacing new-password for your own preference, and remember it:

/usr/bin/mysqladmin -u root password new-password

Now we´ll build a database and an user in MySQL for OpenMeetings:

mysql -p -u root

...will ask for password (you just made right now) type it and make the database:

mysql> CREATE DATABASE open313 DEFAULT CHARACTER SET 'utf8';

(Only one line with space between both)

mysql> GRANT ALL PRIVILEGES ON open313.* TO 'hola'@'localhost' IDENTIFIED BY '123456' WITH GRANT OPTION;

...and leave MySQL:

mysql> quit

       * open313 …........... is the data base name
       * hola   …........… is the user name for this data base
       * 123456 …………. is the password for this user

You are free to change these names and password, but remember them. Later we´ll need it.

Now we´ll open mysql port 3306, so OpenMeetings can connect with it:

For **KDE**:

kwrite /etc/my.cnf

For **MATE**:

pluma /etc/my.cnf

...and the line number 51: skip-networking

...modify so, commented:

skip-networking

...and restart mysql:

service mysqld restart

10)
------ Installation of Apache OpenMeetings ------

We´ll install the 3.1.3 stable version.

We´ll make the OpenMeetings installation in /opt/red5313

Make a folder called **red5313** where download the Apache OpenMeetings file and where make the installation:.

mkdir /opt/red5313

cd /opt/red5313

wget http://ftp.cixug.es/apache/openmeetings/3.1.3/bin/apache-openmeetings-3.1.3.zip

unzip apache-openmeetings-3.1.3.zip

mv apache-openmeetings-3.1.3.zip /opt

.

11)

------ Connector Java MySQL ------

This file is need it to connect OpenMeetings with MySQL. Download and install it:

cd /opt

(Only one line without space between both)

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.39/mysql-connector-java-5.1.39.jar

cp mysql-connector-java-5.1.39.jar /opt/red5313/webapps/openmeetings/WEB-INF/lib

12)

------ Configuring OpenMeetings for MySQL ------

Will introduce our data base name, user and password we made when MySQL configuration.

For MATE:

pluma /opt/red5313/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

For KDE:

kwrite /opt/red5313/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

Modify line 71:

Url=jdbc:mysql://localhost:3306/openmeetings_3_1?.......

to

Url=jdbc:mysql://localhost:3306/open313?....

...open313 is the database name we gives when install MySQL and build it.

Modify lines 76 and **77** respectively:

, Username=root
, Password=" />

to

, Username=hola
, Password=123456" />

...hola is the user name we gives when install MySQL for **open313** database.

...123456 is the password for hola user.

If you choose any other database name, user name or password, here is where to type them. Protect the access to this file:

(Only one line witout space between both)

chmod 640 /opt/red5313/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml

13)
------ **Script to launch red5-OpenMeetings** ------

We download the scrypt will run red5-OpenMeetings:

cd /opt

wget https://cwiki.apache.org/confluence/download/attachments/27838216/red5-3

...copy it to where must be:

cp red5-3 /etc/init.d/

...and concede execution permission:

chmod +x /etc/init.d/red5-3

If you made the installation in other path, edit the scrypt and modify the line:

RED5_HOME=/opt/red5313

...to

RED5_HOME=/your-path-installation

14)
<div align="center">**------ Run red5-OpenMeetings ------**</div>

Restart MySQL (be connected to Internet):

service mysqld restart

...and start red5-OpenMeetings (be connected to Internet):

/etc/init.d/red5-3 start

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

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

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

OpenMeetings

1. Enabling Image Upload and import to whiteboard

- Install **ImageMagick** on the server, you can get more information on http://www.imagemagick.org regarding installation. The instructions for installation can be found there http://www.imagemagick.org/script/binary-releases.php, however on most linux systems you can get it via your favorite package managers (apt-get it)

2. 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).
- Install **SWFTools** on the server, you can get more information on http://www.swftools.org/ regarding installation. Some of the Linux distributions already have it in there package manager see http://packages.debian.org/unstable/utils/swftools), the recommended version of **SWFTools** is 0.9 as prior version have a bug that does lead to wrong object dimensions in the Whiteboard

3. Enabling import of .doc, .docx, .ppt, .pptx, ... all Office Documents into whitebaord

- **OpenOffice-Service** started and listening on port 8100, see OpenOfficeConverter for details

4. Enabling Recording and import of .avi, .flv, .mov and .mp4 into whiteboard

- Install **FFMpeg**. You should get FFMPEG in an up to date copy! For Windows you can download a Build for example from http://ffmpeg.arrozcru.org/builds/ Linux or OSx Users should be able to use one of the various Installation Instructions on the Web. You need to enable libmp3lame!
- Install **SoX** http://sox.sourceforge.net/. You should install SoX in a up to date copy! SoX 12.xx will NOT work!
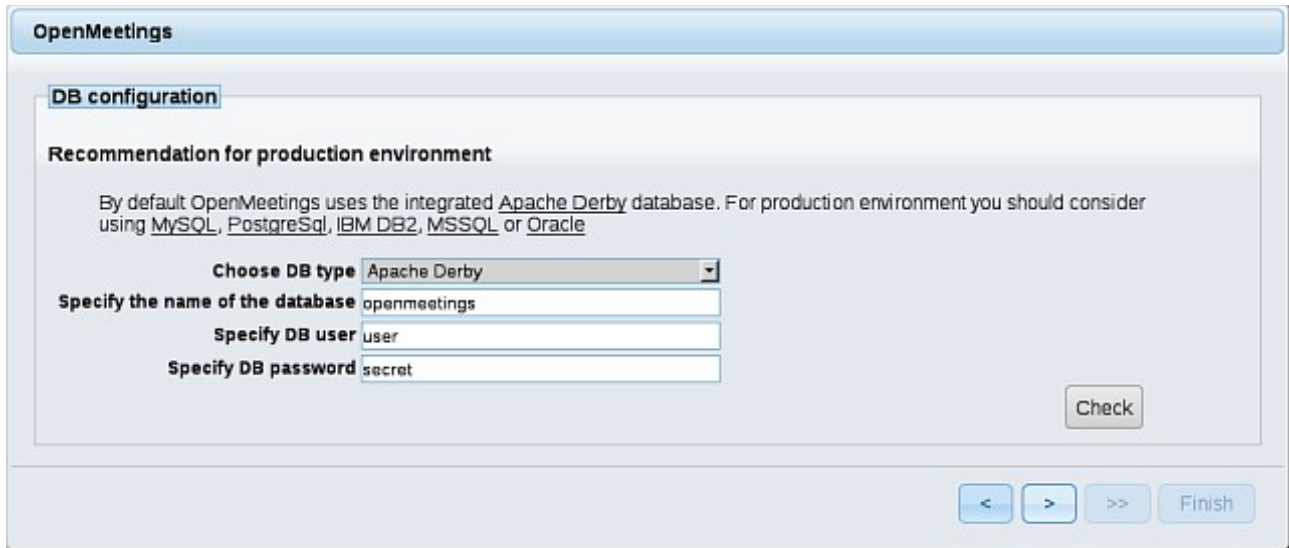
If you have further questions or need support in installation or hosting:
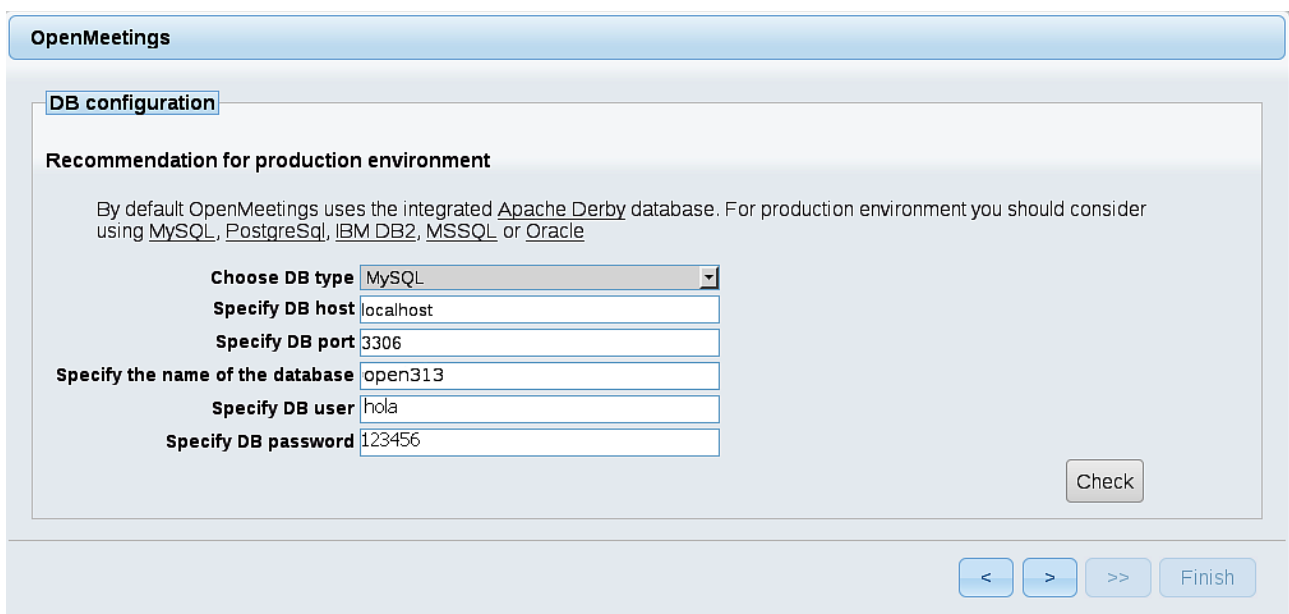
Community-Support:

Mailing lists

Commercial-Support:

...push on [>] (bottom), and will show the default database configuration

with Derby, but we employ MySQL:

...so, please scroll and **Choose DB type** to MySQL:

...will show the database configuration we made in step 13, or with your own modifications.

Please, push [>] button, and will go to:

Now we must introduce the followings data:

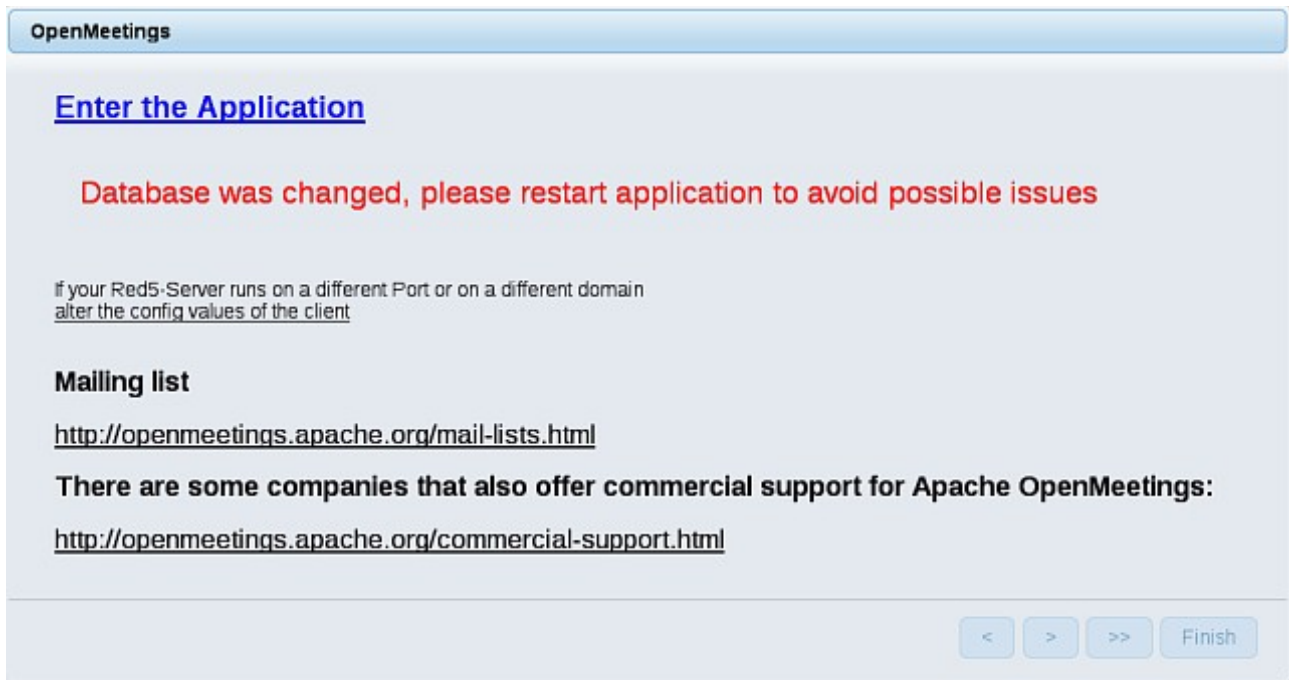|		
Username	=	a-name ...this user will have administrator rights
Userpass	=	a-password ....for the previous user
EMail	=	email-adress ...of the previous user.
User Time Zone	=	country where is this server
Name	=	example-openmeetings ...group name to choose

When the installation be finished, we´ll configure the rest.

Now go to bottom page and push the button   >>   (double arrow). 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. Please, open a new shell window, and run this command
(be connected to Internet):

/etc/init.d/red5-3 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 to accede to OpenMeetings will be:

http://localhost:5080/openmeetings

Remember to open in the server the two following ports:
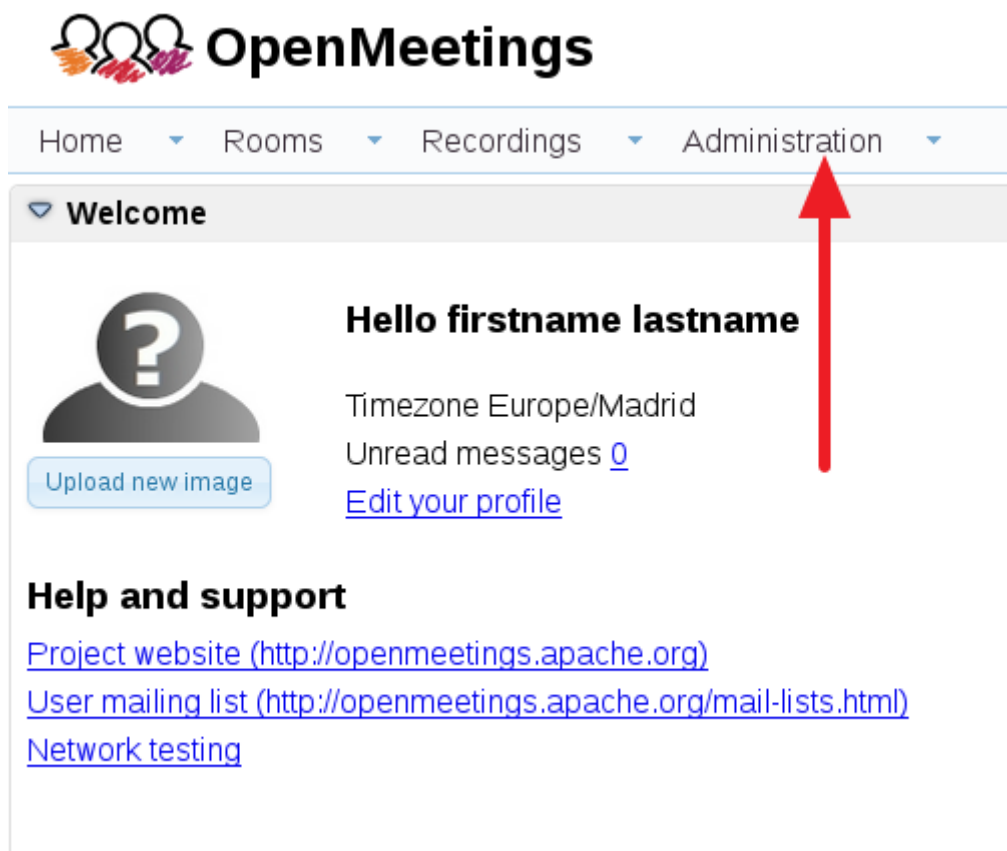
1935   5080

...in order that it could accede to OpenMeetings from other machines, in Lan or Internet.
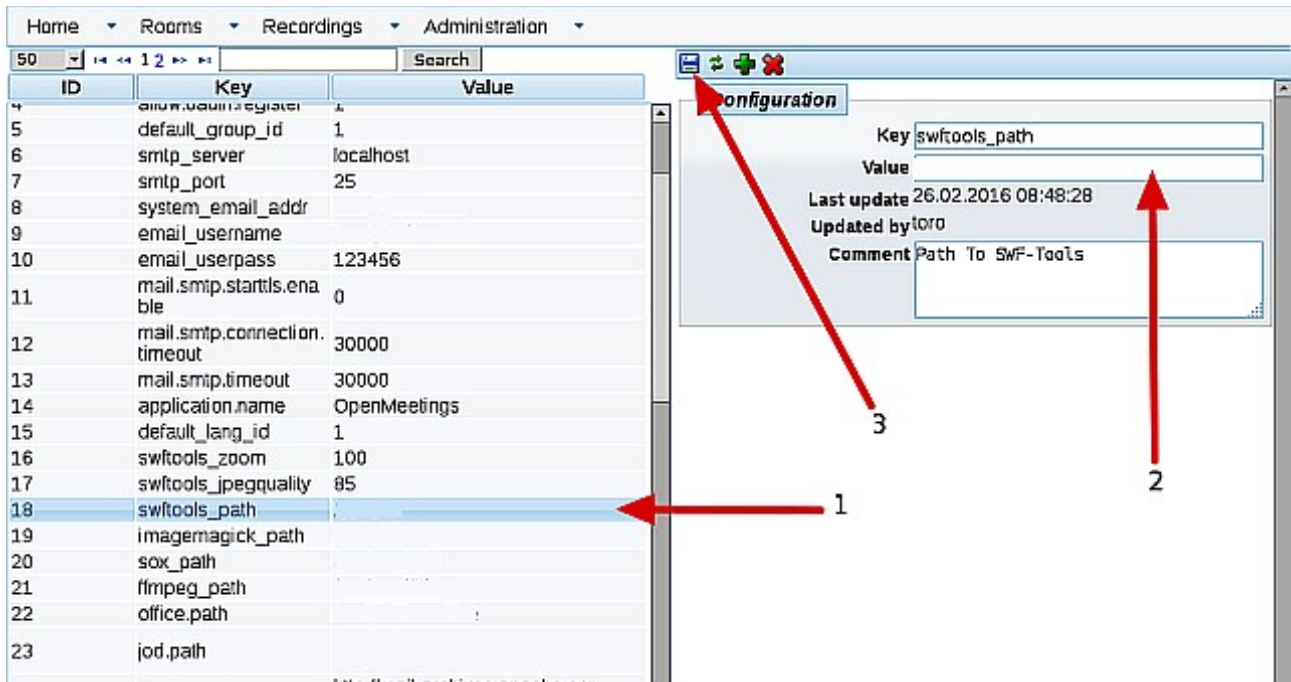
15)

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

Once have acceded to OpenMeetings we go to:

Administration → Configuration

...introduce the parameters for the conversion of files, the audio and the video:

Click on: **swftools_path**   ...and to up right in **Value** type: /usr/bin

Click on: **imagemagick_path**   ...and to up right in **Value** type: /usr/bin

Click on: **sox_path**   ...and to up right in **Value** type: /usr/bin

Click on: **ffmpeg_path**   ...and to up right in **Value** type: /usr/local/bin

Click on: **office.path**   ...and to up right in **Value** type: /opt/libreoffice5.0

Click on: **jod.path**   ...and to up right in **Value** type: /opt/jodconverter-core-3.0-beta-4/lib

Remember to save after each change (arrow number **3**, up screenshot)

And this is all.

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

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

Thank you.

   Alvaro Bustos