Installation of Apache OpenMeetings 2.x or 3.x in CentOS 6.5

This tutorial is made based on fresh installations of

CentOS-6.5-i386-LiveCD and **CentOS-6.5-x86_64-LiveCD**

It is tested in both versions with positive result. We will use
the Apache's binary version OpenMeetings 2.2, that is to say,
will suppress his compilation. It is done step by step.

11-2-2014

Starting...

1)

– Add repository --

Install epel and linuxtech repository, the last one it is to install vlc.

For CentOS 6.x **32 bits**:

cd /opt

wget http://dl.fedoraproject.org/pub/epel/6/i386/epel-release-6-8.noarch.rpm

rpm -Uvh epel-release-6-8.noarch.rpm

For CentOS 6.x **64 bits**:

cd /opt

wget http://dl.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm

rpm -Uvh epel-release-6-8.noarch.rpm

cd /opt

wget http://pkgrepo.linuxtech.net/el6/release/linuxtech.repo

cp linuxtech.repo /etc/yum.repos.d

Update the repository and the operative system:

yum update

...installation of vlc to play video:

yum install -y vlc

...one installs automatically Java Open 1.6.0 and many libraries of media.

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2)

---- Installation of libraries for compilations and packages ----

Copy line to line and them put one after other one in the shell.

yum install -y libjpeg libjpeg-devel giflib giflib-devel giflib-utils ghostscript freetype freetype-devel unzip gcc ncurses ncurses-devel make gcc-c++ libtermcap libtermcap-devel zlib zlib-devel libtool bison bison-devel openssl-devel bzip2 bzip2-devel wget ImageMagick file-roller unzip zlib zlib-devel x264

---- Installation and configuration of MySQL ----

yum install -y mysql mysql-server

Give a root password in MySQL substituting 'new-password' that we have just chosen:

service mysqld start

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

Build the database for OpenMeetings:

mysql -p -u root

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

 mysql> CREATE DATABASE open22final DEFAULT CHARACTER SET 'utf8';

With this command we have created a so called database open22final though they can choose
another name to his whish.
Now we create a user with all the permissions for this database.
Type the following command everything in an alone line with space of separation between both:

mysql> GRANT ALL PRIVILEGES ON open22final.* TO 'openmeetings'@'localhost'
IDENTIFIED BY '123456' WITH GRANT OPTION;

               * open22final ......is the database name.
               * openmeetings ...is the user name for the database.
               * 123456 …..........is the password of the user called openmeetings.

          You can change the dates.

    We go out from MySQL console:

mysql> quit

3)

---- Installation of Adobe flash player----

Go to:

http://get.adobe.com/flashplayer/

Once there:

Select version to download... → .rpm for other Linux --> Download now

can install the unloaded file doing right click on him and "Open with Package Installer".

4)

---- Installation of LibreOffice ----

Install now LibreOffice...if it is that you do not have it even installed, for the conversion of files.
Copy line to line and them put one after other one in the shell:

yum -y install libreoffice libreoffice-base libreoffice-core libreoffice-draw libreoffice-headless
libreoffice-impress libreoffice-writer

Now some kind of information only:

LibreOffice **32 bits** establishes himself in **/usr/lib/libreoffice**.
LibreOffice **64 bits** establishes himself in **/usr/lib64/libreoffice**.

5)

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

For **32 bits**:

cd /opt

...put everything it of below in an alone line in the shell to unload the java file...

wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F%2Fwww.oracle.com" "http://download.oracle.com/otn-pub/java/jdk/7u51-b13/jdk-7u51-linux-i586.rpm"

...now we install the unloaded file:

rpm -Uvh jdk-7u51-linux-i586.rpm

...and remove it:

rm -f jdk-7u51-linux-i586.rpm

For **64 bits**:

cd /opt

...put everything it of below in an alone line in the shell to unload the java file...

wget --no-cookies --no-check-certificate --header "Cookie: gpw_e24=http%3A%2F%2Fwww.oracle.com" "http://download.oracle.com/otn-pub/java/jdk/7u51-b13/jdk-7u51-linux-x64.rpm"

...now we install the unloaded file :

rpm -Uvh jdk-7u51-linux-x64.rpm

Environment JAVA_HOME for 32 bits and 64 bits:

gedit /etc/profile

...at the end of the file we add:

export JAVA_HOME=/usr/java/jdk1.7.0_51/bin/java
export PATH=$PATH:/usr/java/jdk1.7.0_51/bin

...Attention, the number of the version changes if you have unloaded different other one...

...and now activate it:

source /etc/profile

For **32** and **64** bits: line to line...

update-alternatives --install /usr/bin/java java /usr/java/jdk1.7.0_51/jre/bin/java 20000
update-alternatives --install /usr/bin/jar jar /usr/java/jdk1.7.0_51/bin/jar 20000
update-alternatives --install /usr/bin/javac javac /usr/java/jdk1.7.0_51/bin/javac 20000
update-alternatives --install /usr/bin/javaws javaws /usr/java/jdk1.7.0_51/jre/bin/javaws 20000

update-alternatives --config javac
update-alternatives --config java ...seleccionamos el número de /usr/java/jdk1.7.0_51/bin/java
update-alternatives --config javaws

...to verify that it has stayed correctly:

ls -lA /etc/alternatives/

...and it must appear in green color (look for it)

lrwxrwxrwx. 1 root root 29 Feb 22 03:39 jar -> /usr/java/jdk1.7.0_51/bin/jar
lrwxrwxrwx. 1 root root 34 Feb 22 03:39 java -> /usr/java/jdk1.7.0_51/jre/bin/java
lrwxrwxrwx. 1 root root 31 Feb 22 03:39 javac -> /usr/java/jdk1.7.0_51/bin/javac
lrwxrwxrwx. 1 root root 36 Feb 22 03:39 javaws -> /usr/java/jdk1.7.0_51/jre/bin/javaws

6)

---- Compilation of lame, sox, swftools and ffmpeg ----

Compile **Lame** for mp3 audio.

cd /opt

wget http://optimate.dl.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz

tar xzvf lame-3.99.5.tar.gz

cd /opt/lame-3.99.5

./configure --libdir=/usr/lib --bindir=/usr/bin

make && make install

Compile **Sox** for audio.

cd /opt

wget http://sourceforge.net/projects/sox/files/sox/14.4.1/sox-14.4.1.tar.gz/download

tar xzvf sox-14.4.1.tar.gz

cd /opt/sox-14.4.1

./configure --enable-libmp3lame

make && make install

Compile **Swftools** to flash convertion.

cd /opt

wget http://www.swftools.org/swftools-2013-04-09-1007.tar.gz

tar xzvf swftools-2013-04-09-1007.tar.gz

cd /opt/swftools-2013-04-09-1007

./configure --libdir=/usr/lib --bindir=/usr/bin

make && make install

Compile **Ffmpeg** for video.

cd /opt

wget http://ffmpeg.org/releases/ffmpeg-2.1.3.tar.gz

tar xzvf ffmpeg-2.1.3.tar.gz

cd /opt/ffmpeg-2.1.3

Copy line to line and them put one after other one with space in the shell.

./configure --libdir=/usr/lib --bindir=/usr/bin --enable-libmp3lame --disable-yasm --enable-nonfree --enable-gpl

make && make install

7)

Type the name of your machine in:

gedit /etc/hosts

...for exemple:

```
127.0.0.1               localhost.localdomain localhost your-machine
::1               localhost6.localdomain6 localhost6
your-ip-local your-machine
```

8)

Install for the conversion **Jodconverter.**

cd /opt

wget http://jodconverter.googlecode.com/files/jodconverter-core-3.0-beta-4-dist.zip

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

9)

---- Installation of OpenMeetings ----

We´ll install OpenMeetings in /opt/red522final. All the following information will be based on this directory.

Call to our folder of installation **red522final**

Make the folder:

mkdir /opt/red522final

cd /opt/red522final

wget http://www.eu.apache.org/dist/openmeetings/2.2.0/bin/apache-openmeetings-2.2.0.zip

unzip apache-openmeetings-2.2.0.zip

...remove the unloaded file:

rm -f apache-openmeetings-2.2.0.zip

Do to **nobody** user of the whole OpenMeetings folder installation:

chown -R nobody /opt/red522final

Unload and install the connector between OpenMeetings and MySQL:

cd /opt

wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.29/mysql-connector-java-5.1.29.jar

...and copy it to where it must be:

cp /opt/mysql-connector-java-5.1.29.jar /opt/red522final/webapps/openmeetings/WEB-INF/lib

Now we are going to form OpenMeetings for our database in MySQL:

cd /opt/red522final/webapps/openmeetings/WEB-INF/classes/META-INF

mv persistence.xml persistence.xml-ori

mv mysql_persistence.xml persistence.xml

gedit /opt/red522final/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

...to change on **line 82**

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

...to

, Url=jdbc:mysql://localhost:3306/open22final

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

... to change on **line 87**

, Username=root

...to

, Username=openmeetings

...is the user that we did initially for the database.

...to change on **line 88**

, Password=" />

...to

, Password=123456" />

...it is the password that we did initially for the user "openmeetings" in the database.
Logically if initially you chose another name and password for the database, you will to change
them here.

We protect the access to the file:

chmod 640 /opt/red522final/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

11)

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

Do a script of start and stop for red5-OpenMeetings that we will call "**red5**"

gedit /etc/init.d/red5

...copy, paste and save the whole green text of below:

```
#!/bin/bash
# For RedHat and cousins:
# chkconfig: 2345 85 85
# description: Red5 flash streaming server
# processname: red5
# Created By: Sohail Riaz (sohaileo@gmail.com)

PROG=red5
RED5_HOME=/opt/red522final
DAEMON=$RED5_HOME/$PROG.sh
PIDFILE=/var/run/$PROG.pid

# Source function library
. /etc/rc.d/init.d/functions

[ -r /etc/sysconfig/red5 ] && . /etc/sysconfig/red5

RETVAL=0

case "$1" in
```

```
        start)
        echo -n $"Starting $PROG: "
        cd $RED5_HOME
        $DAEMON >/dev/null 2>/dev/null &
        RETVAL=$?
        if [ $RETVAL -eq 0 ]; then
                echo $! > $PIDFILE
                touch /var/lock/subsys/$PROG
        fi
        [ $RETVAL -eq 0 ] && success $"$PROG startup" || failure $"$PROG startup"
        echo
        ;;
        stop)
        echo -n $"Shutting down $PROG: "
        killproc -p $PIDFILE
        RETVAL=$?
        echo
        [ $RETVAL -eq 0 ] && rm -f /var/lock/subsys/$PROG
        ;;
        restart)
        $0 stop
        $0 start
        ;;
        status)
        status $PROG -p $PIDFILE
        RETVAL=$?
        ;;
        *)
        echo $"Usage: $0 {start|stop|restart|status}"
        RETVAL=1
esac

exit $RETVAL
```

12)

Give permission of execution to the script newly made:

chmod +x /etc/init.d/red5

 13)
Start MySql if still it is not:

service mysqld start

...and now we start red5-OpenMeeting:

/etc/init.d/red5 start

...wait 10 seconds at least in order that red5 it is thrown completely, and later go to:

http://localhost:5080/openmeetings/install

...there will have to appear a page similar to this one:
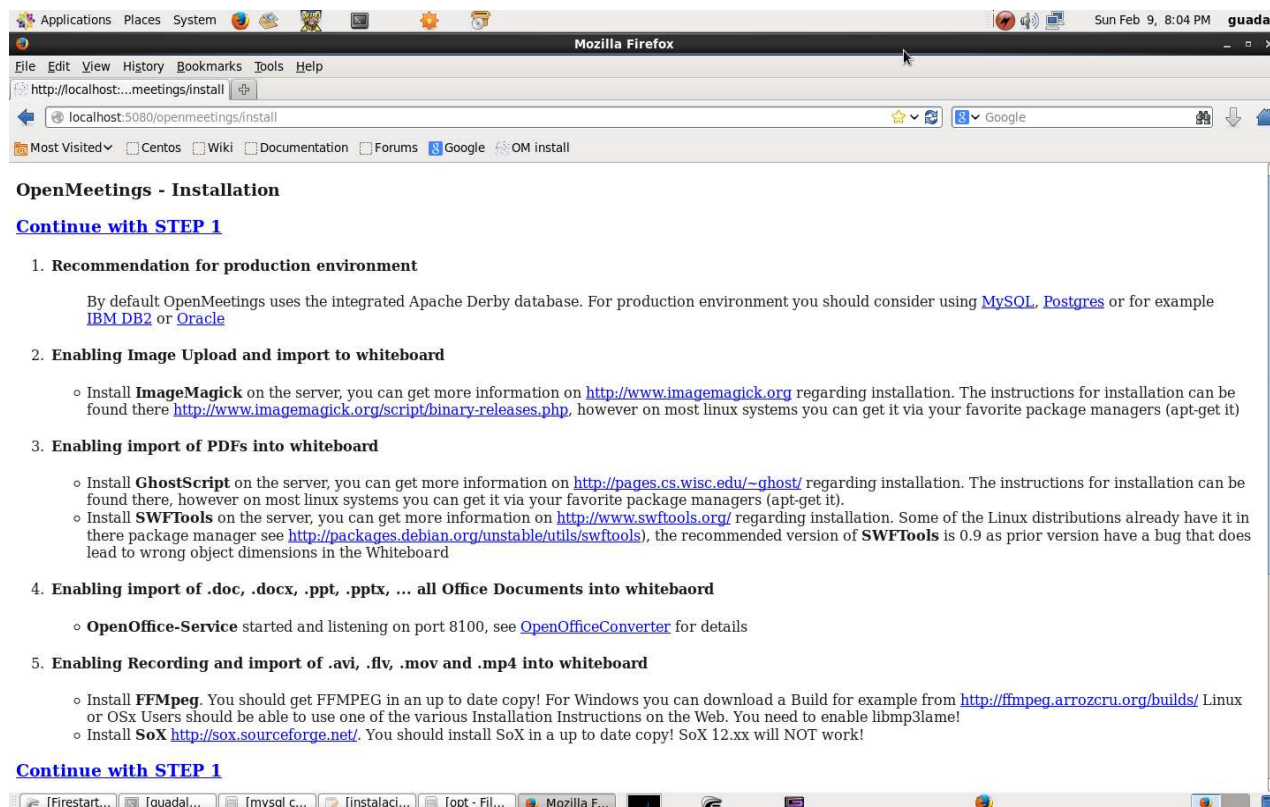
...clic on **Continue with STEP 1**

...and this another page will appear:
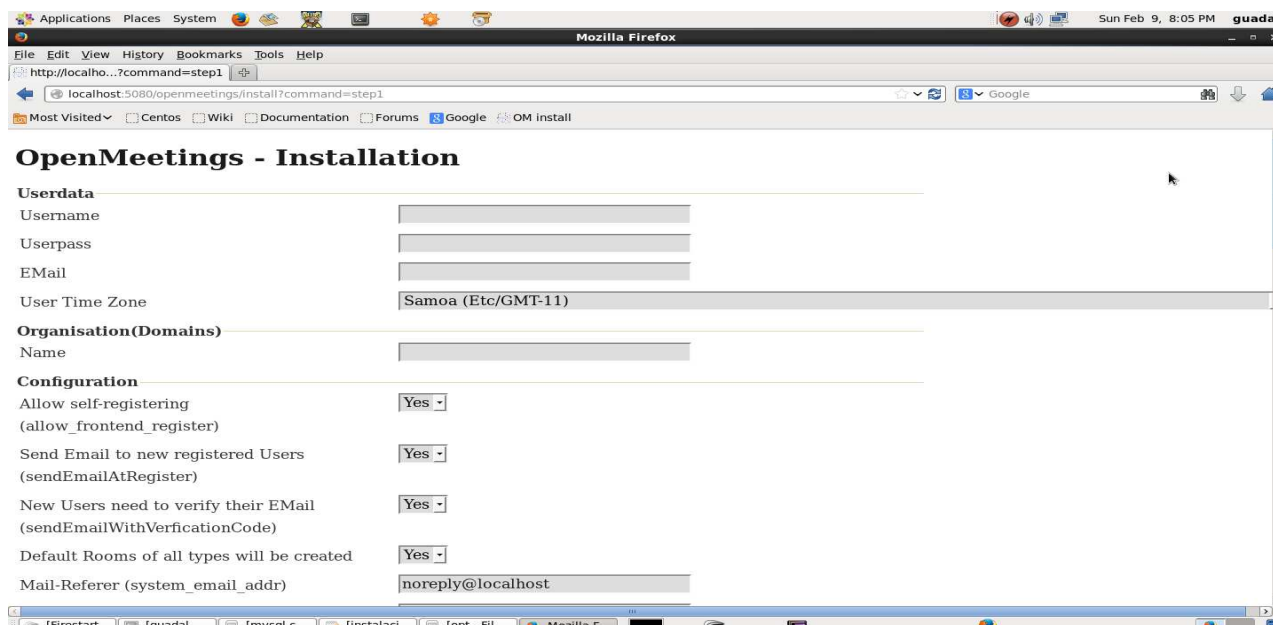
...here we have to introduce necessarily, to be able to continue, the following things:

          Username = **a-name**   ...this user will be administrator.

          Userpass   = **password** ...for the previous user.

          Email   = **email-adress** ...of the previous user.

Organisation(Domains)

          Name   = **exemple-openmeetings** ...group name to choose.

          Default Language = select the language for OpenMeetings.

...we continue in the same page down below and we will not write anything. We will do it once we have concluded the installation and let's accede to the section of Administration.

Go below completely of the page and touch the button **INSTALL**
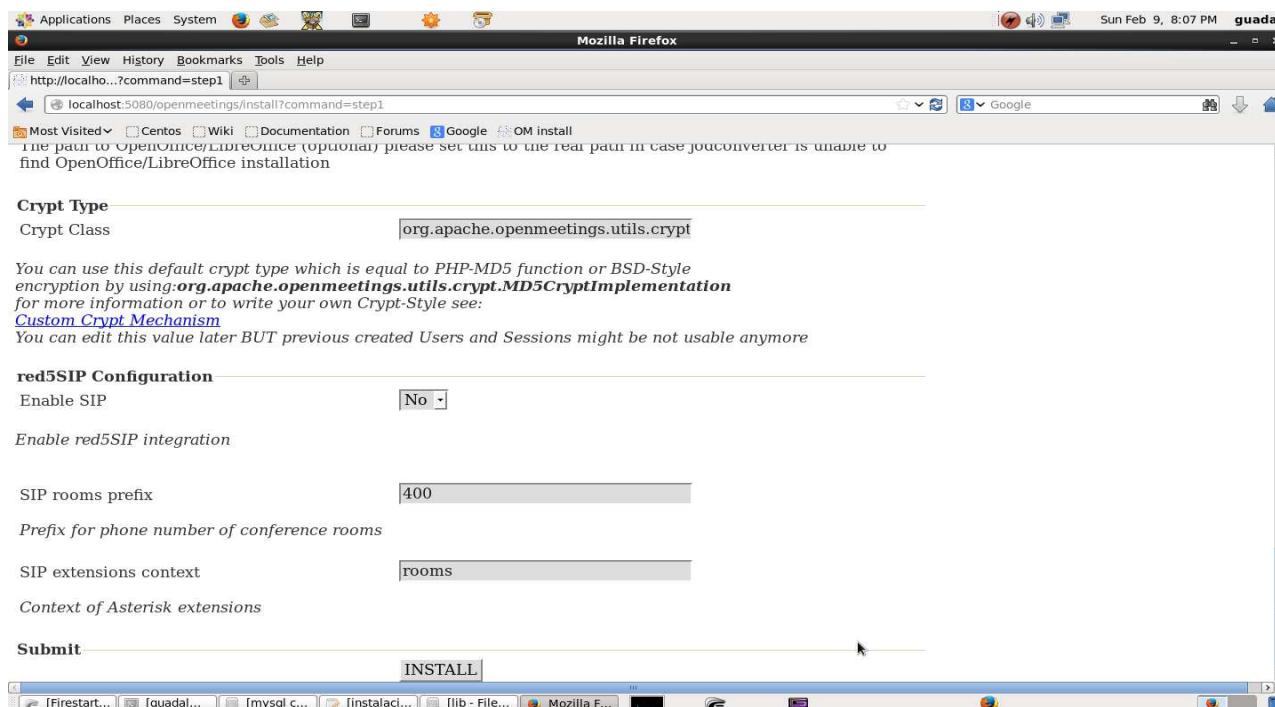
...and wait a *moment* until the tables are constructed in the database.

When has concluded this another page will appear:

...clic on **Enter the Application**

...And we will see OpenMeetings's entry:
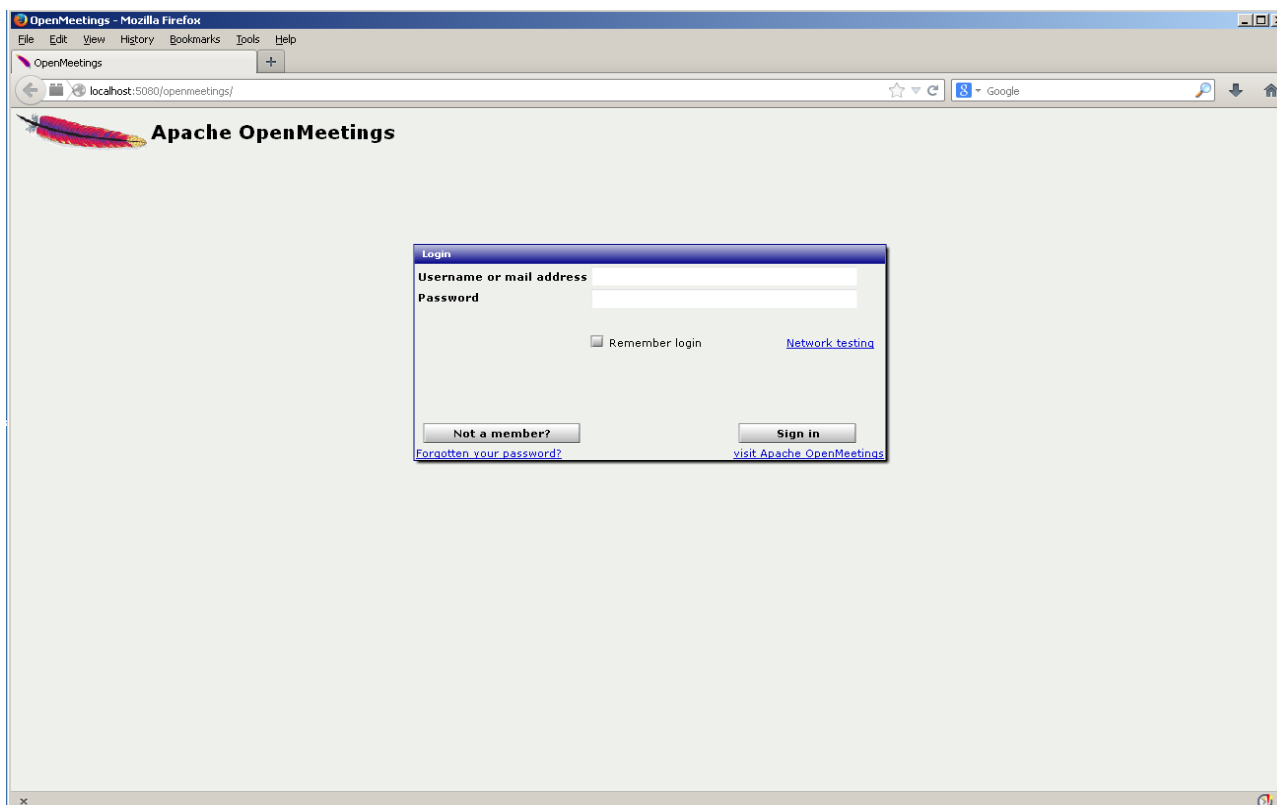
Introduce the user's name and the password that we have chosen during the installation and
...Congratulations!

The near time that you wants to accede to OpenMeetings will be across:

http://localhost:5080/openmeetings

Remember to open in the servant three following ports:

5080   1935   8088

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

14)

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

Once we have acceded to OpenMeetings go to:

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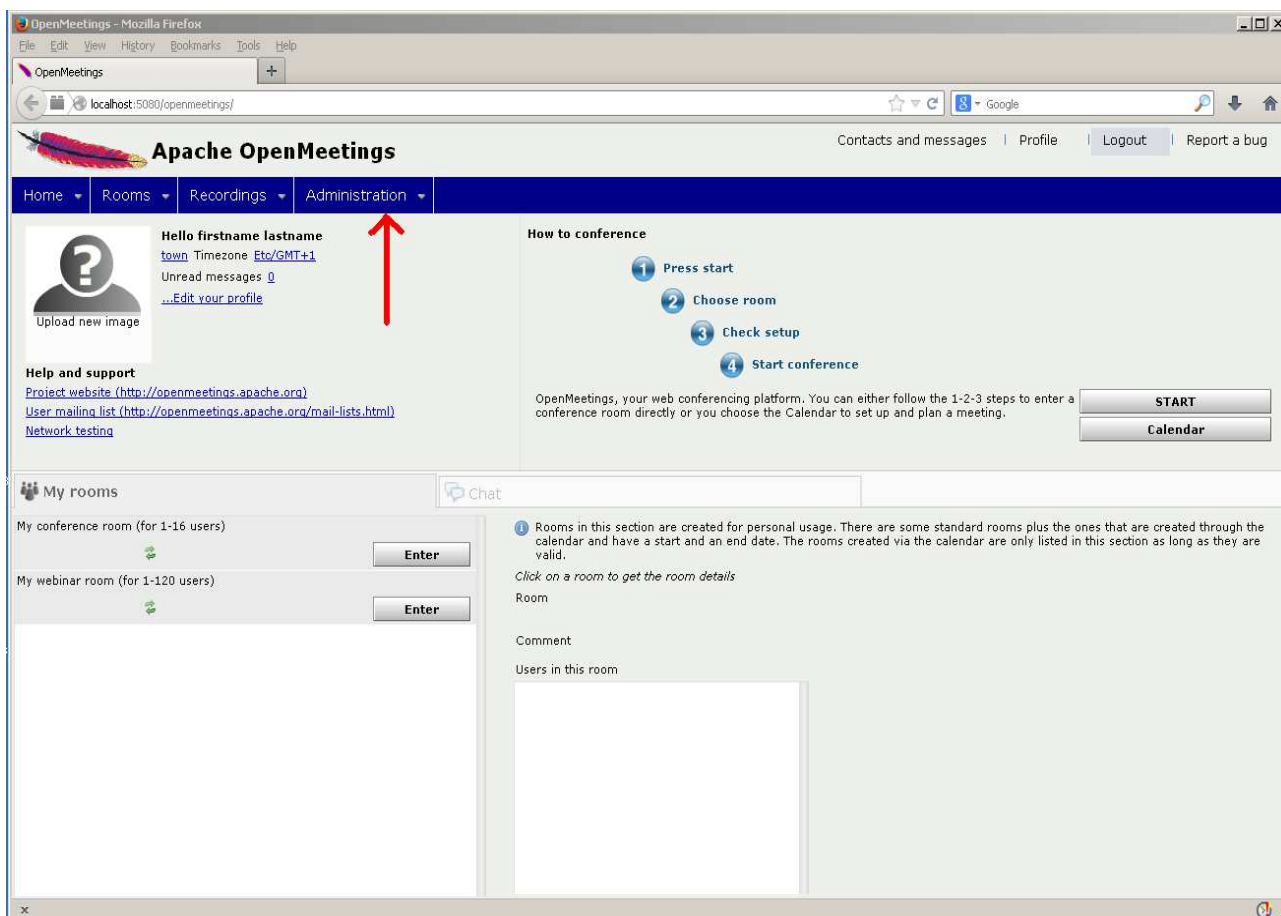
...introduce the parameters for the conversion of files, the audio and the video:

Clic on: **swftools_path**...and to the right in **Value** type: **/usr/bin**

Clic on: **imagemagick_path**...and to the right in **Value** type: **/usr/bin**

Clic on: **sox_path**...and to the right in **Value** type: **/usr/local/bin**

Clic on: **ffmpeg_path**...and to the right in **Value** type: **/usr/bin**

Clic on: **office.path**...and to the right in **Value** type (32 bits): **/usr/lib/libreoffice**
Clic on: **office.path**...and to the right in **Value** type (64bits): **/usr/lib64/libreoffice**

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

Now there is OpenMeetings ready to work completely.

15)
We are going to remove files and folders that already do not serve us, if you do not want to guard them.

rm -f /opt/jodconverter-core-3.0-beta-4-dist.zip

rm -f /opt/mysql-connector-java-5.1.29.jar

rm -f /opt/lame-3.99.5.tar.gz

rm -f /opt/sox-14.4.1.tar.gz

rm -f /opt/swftools-2013-04-09-1007.tar.gz

rm -f /opt/ffmpeg-2.1.3.tar.gz

rm -f -R /opt/lame-3.99.5

rm -f -R /opt/sox-14.4.1

rm -f -R /opt/swftools-2013-04-09-1007

rm -f -R /opt/ffmpeg-2.1.3

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