**Installation of  Apache OpenMeetings 4.0.3 on openSUSE Leap 42.3**

This tutorial is made based on fresh installations of

**openSUSE-Leap-42.3-DVD-x86_64.iso**

It is tested with positive result. We will use the Apache's
binary version OpenMeetings 4.0.3 stable, that is to say
will suppress his compilation. It is done step by step.

19-4-2018

Starting...

**1)**

------ **Update Operative System** ------

Update operative system:

zypper refresh

zypper update

**2)**

------ **Installation of Oracle Java 1.8** ------

Java **1.8** it is necessary to work OpenMeetings **4.0.3**. So, we install Oracle Java 1.8.

cd /opt

After paste the lines, press space button keyboard and Enter. Download the file:

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

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/8u161-b12/2f38c3b165be4555a1fa6e98c45e0808/jdk-
8u161-linux-x64.rpm


...and install it:

zypper install jdk-8*.rpm        ...type i (ignore) when ask about sign verification.

zypper install update-alternatives


We do to Oracle, the default java system:

update-alternatives --install /usr/bin/java java /usr/java/jdk1.8.0_161/bin/java 1551

update-alternatives --install /usr/bin/javadoc javadoc /usr/java/jdk1.8.0_161/bin/javadoc 1551

update-alternatives --install /usr/bin/jar jar /usr/java/jdk1.8.0_161/bin/jar 1551

update-alternatives --install /usr/bin/javap javap /usr/java/jdk1.8.0_161/bin/javap 1551

update-alternatives --install /usr/bin/javac javac /usr/java/jdk1.8.0_161/bin/javac 1551

update-alternatives --install /usr/bin/javah javah /usr/java/jdk1.8.0_161/bin/javah 1551

update-alternatives --install /usr/bin/jarsigner jarsigner /usr/java/jdk1.8.0_161/bin/jarsigner 1551


Maybe is installed different versions of Java. We select the just installed Oracle Java:

update-alternatives --config java

And to see if the selected version is active:

java -version


**3)**

**------  Installation of LibreOffice ------**

OpenMeetings need LibreOffice to convert to pdf, the uploaded office files.

Maybe it is installed, but for iso server:

zypper install -y libreoffice

**4)**
### ------ Installation of necessary packages and libraries ------

We install packages and libraries that we´ll need later:

(Only one line with space between both)

zypper install -y gcc ghostscript unzip freetype freetype-devel ncurses ncurses-devel make libz1 zlib-devel libtool bzip2 file-roller git autoconf automake pkg-config nmap nano

**5)**
### ------ Installation ImageMagick and Sox ------

**ImageMagick,** will work with images files jpg, png, gif, etc. We install it and some librarie:

zypper install -y ImageMagick giflib-devel

**Sox,** work the sound. Install it:

zypper install -y sox

**6)**
### ------ Installation of Adobe Flash Player ------

OpenMeetings even need Adobe Flash Player for cam.

Add Adobe repo and install it:

sudo zypper ar --check --refresh http://linuxdownload.adobe.com/linux/x86_64/ adobe

sudo zypper se -s -r adobe
(Only one line without space between both)

sudo rpm -ivh http://linuxdownload.adobe.com/adobe-release/adobe-release-x86_64-1.0-1.noarch.rpm

sudo rpm --import /etc/pki/rpm-gpg/RPM-GPG-KEY-adobe-linux

sudo zypper install flash-plugin      ...type i (ignore) when ask about sign verification.


**7)**

**------ Compilation of FFmpeg ------**

FFmpeg work video. We install Packman repository to can install somes libraries:

(Only one line witht space between both)

zypper ar -f -n packman http://ftp.gwdg.de/pub/linux/misc/packman/suse/openSUSE_Leap_42.3/repo_packman

zypper update      ...when ask, accept for ever.

(Only one line witht space between both)

zypper install -y glibc imlib2 imlib2-devel mercurial cmake freetype2-devel libfreetype6 curl git vlc libogg-devel libtheora-devel libvorbis-devel libvpx-devel fdk-aac-devel libmp3lame-devel

This ffmpeg compilation is based in this url, updated to 19-4-2018:

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

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

cd /opt

wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg-opensuse42.sh

...concede permission of execution:

chmod +x ffmpeg-opensuse42.sh

...and run it, be connected to Internet:

./ffmpeg-opensuse42.sh

Will spend about 20 minutes. When finish, will announce it with this text:


FFMPEG Compilation is Finished!


...then, please go to **step 8)**.

All the compiled files will be installed on:  /usr/local/bin

**8)**

**------ Installation of MariaDB data server ------**

MariaDB is the data server.

We install it:

zypper install -y mariadb mariadb-tools

...and run mariadb:

systemctl start mysql.service

Give a password to MariaDB root . Please, modify new-password by your own:

mysqladmin -u root password new-password

Make a database with his own user for OpenMeetings:

mysql -u root -p

...will ask for the root-mariadb password that we have just chosen:


MariaDB [(none)]> CREATE DATABASE open403 DEFAULT CHARACTER SET 'utf8';

Now we create a user with all permission on this database. User password must be of 8 digits minimum with letter case, numbers or caracters + * % etc:

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open403.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;


                                * open403 ......is the database name.
                                *  hola ………is the user name for the database.
                                * 1a2B3c4D  ..is the password of this user.

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

MariaDB [(none)]> quit


**9)**

**------ Installation of OpenMeetings ------**

We´ll install OpenMeetings in /opt/red5403. All the following information will be based on this directory.

Make the folder:

mkdir /opt/red5403

cd /opt/red5403

...and download the OpenMeetings file:

wget http://apache.miloslavbrada.cz/openmeetings/4.0.3/bin/apache-openmeetings-4.0.3.zip

unzip apache-openmeetings-4.0.3.zip

...save the unloaded file to /opt:

mv apache-openmeetings-4.0.3.zip /opt

Download and install the connector file 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/red5403/webapps/openmeetings/WEB-INF/lib

**10)**
                    **------ Script to launch red5-OpenMeetings ------**

We´ll 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 made the installation in any other different path to /opt/red5403, please edit the script and modify the line:

export RED5_HOME=/opt/red5403

...to

export RED5_HOME=/your-path-installation

**11)**

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

Restart mariadb, (be connected to Internet):

systemctl restart mysql.service

...and run red5-OpenMeetings, please, in a new window terminal (be connected to Internet):

/etc/init.d/red5-2 start

...wait about 40 seconds in order red5 can run completly. Then, go with the browser to:

http://localhost:5080/openmeetings/install

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



...press on   `>`   (bottom), and will show the default configuration with Derby, but we employ MySQL (MariaDB):

...then, scroll and **Choose DB type** to MySQL:



Now we must introduce the database name, user name and his password, we did at the step 8:
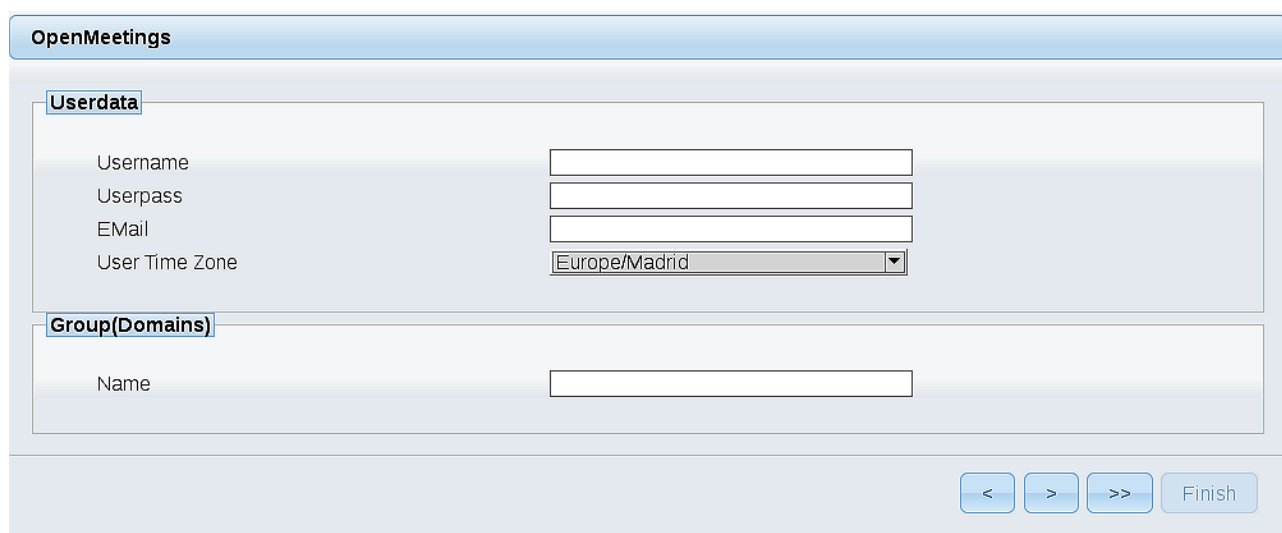
**Specify the name of the database**  =  open403

**Specify DB user**  =  hola

**Specify DB password**  =  1a2B3c4D

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


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-name  ...this user will be administrator.

**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.



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 | 🟩 | |
| Send Email to new registered Users | 🟥 | |
| New Users need to verify their EMail | 🟥 | |
| Default DB objects of all types will be created (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 invitations | 🟩 | |
| Default Language | inglés | |

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 (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 |
| **Default Language** | == | ...select your language |

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

Now press the button  > and a new page will appear:

Here we´ll introduce the respective paths for the image, video, audio and conversion of uploaded files:

| ImageMagick Path (Path) | == | /usr/bin |
|---|---|---|
| FFMPEG Path (Path) | == | /usr/local/bin |
| SOX Path (Path) | == | /usr/bin |
| OpenOffice/LibreOffice Path (Path) for jodconverter | == | /usr/lib64/libreoffice |

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:

OpenMeetings

**Crypt Type**

Crypt Class    ⓘ                    org.apache.openmeetings.util.crypt.SCr

**red5SIP Configuration**

Enable SIP    ⓘ
SIP rooms prefix    ⓘ                400
SIP extensions context    ⓘ          rooms

< | > | >> | Finish

Now push the button  [ > ]  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 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 terminal and restart red5:

/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:



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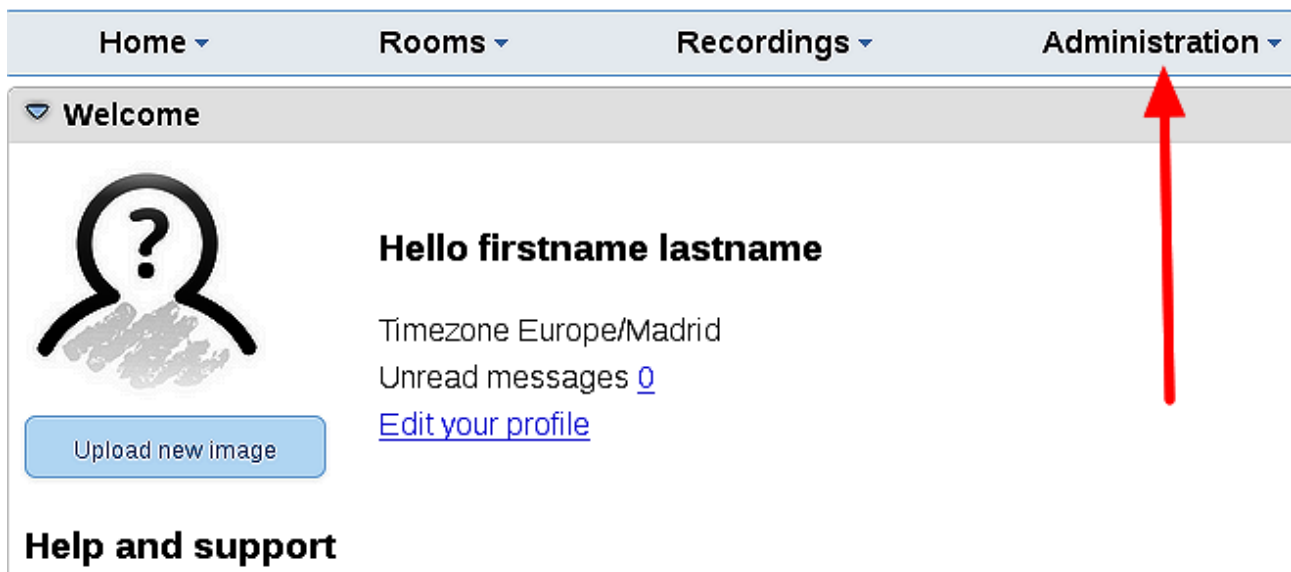
...in order that it could accede to OpenMeetings from other machines from Lan or Internet.

**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:

And this is all.

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

Thank you.

      Alvaro Bustos