Installation of Apache OpenMeetings 5.0.0-M1

on

Fedora 29 final

This tutorial it is bassed on a fresh installa-
tion of

Fedora-MATE_Compiz-Live-x86_64-29-1.2.iso

It is tested with positive result.
We will use the Apache's binary version
OpenMeetings 5.0.0-M1 stable,
that is to say we´ll suppress his compilation.
It is done step by step**.**

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1)
At first place, modify Selinux level security, for the installation, and install nano editor:

su

dnf install nano

sudo nano /etc/selinux/config

…modify:

SELINUX=**enforcing**

...to

SELINUX=**permissive**

Press **Ctrl+x** and will ask to save, press **Y,** and **Enter**, to save and leave nano´s editor.

Add our user system to sudoers, so can use sudo:

nano /etc/sudoers

...copy and paste replacing user by your real user system name:

user   ALL=(ALL:ALL) ALL

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

exit   ...exit as root.

2)

------ Update the system ------

Update the system:

sudo dnf update -y

...and reboot the machine to get effect the changes. After reboot continue at step 3:

sudo reboot

3)

------ ADD Repos ------

RPM Fusion repo

(Only one line without space between them)

sudo su -c 'dnf install --nogpgcheck http://download1.rpmfusion.org/free/fedora/rpmfusion-free-release-29.noarch.rpm http://download1.rpmfusion.org/nonfree/fedora/rpmfusion-nonfree-release-29.noarch.rpm'

 Update again:

sudo dnf update -y

4)

------ Installation of packets and libraries ------

We install necessary packets and libraries:

(Only one line with a space between each one)

sudo dnf install -y libjpeg-turbo libjpeg-turbo-devel libjpeg-turbo-utils giflib-devel freetype-devel gcc-c++ zlib-devel libtool bison bison-devel file-roller ghostscript freetype unzip gcc ncurses make bzip2 wget ghostscript ncurses zlib git make automake nasm pavucontrol alsa-plugins-pulseaudio nmap tomcat-native 'dnf-command(versionlock)' h264enc

5)

------ Installation of OpenJava 8 ------

Java **8,** minimum**,** is needeed to work OpenMeetings **5.0.0-M1**. Will install OpenJava 8.

-- Only for Fedora 32 bit --

sudo dnf install java-1.8.0-openjdk.i686 java-1.8.0-openjdk-headless.i686

-- Only for Fedora 64 bit --

sudo dnf install java-1.8.0-openjdk.x86_64 java-1.8.0-openjdk-headless.x86_64

May be you have installed different versions of Java. Please, select the just installed OpenJava 1.8:

sudo update-alternatives --config java

...and to see if the selected version is active:

sudo java -version

6)

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

LibreOffice it is installed already in the desktop-distro, but especially for server iso:

sudo dnf -y install libreoffice

Is needeed to convert uploaded office files to pdf.

7)

------ Installation of ImageMagick and Sox ------

 ImageMagick, work with the images files jpg, png, gif, etc. Install it:

sudo dnf -y install ImageMagick

Sox, work with the audio. Install it:

sudo dnf -y install sox

8)

------ Installation of FFmpeg ------

FFmpeg will work the video. Will install a paquets and libraries:

(Only one line with space between 1ª and 2ª, together 2ª and 3ª)

sudo dnf install -y ffmpeg glibc alsa-lib-devel gsm gsm-devel imlib2 imlib2-devel libogg libvorbis vorbis-tools theora-tools libvpx-devel mercurial cmake curl git gstreamer1-libav gstreamer1-plugins-ugly

9)

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

MariaDB is the data server fork of MySQL.

We install it:

sudo dnf install -y mariadb mariadb-server

...and run MariaDB (be connected to Internet, to run it quickly):

sudo systemctl start mariadb.service

Give a password to MariaDB root. Please, replace **new-password** by your own whish:

sudo mysqladmin -u root password **new-password**

Make a database for OpenMeetings:

sudo mysql -u root -p

...will ask for the root password you choose just now:

MariaDB [(none)]> CREATE DATABASE open500 DEFAULT CHARACTER SET 'utf8';

Now we create a user with all permision on this open500 database. User password must be of 8 digits minimum:

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open500.* TO 'hola'@'localhost' IDENTIFIED BY '1a2B3c4D' WITH GRANT OPTION;

```
* open500  ............. name of the database
* hola      ............. user for that database
* 1a2B3c4D  ......... password of that user
```

You can change the data...but remember it! Later we´ll need it.

Now we leave MariaDB:

MariaDB [(none)]> quit

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

Make a folder called open500 where download the Apache OpenMeetings file, and where we´ll do the installation of OpenMeetings 5.0.0-M1 stable:

sudo mkdir /opt/open500

cd /opt/open500

...download and uncompress the file:

(Only one line without space between both)

sudo wget http://archive.apache.org/dist/openmeetings/5.0.0-M1/bin/apache-openmeetings-5.0.0-M1.zip

sudo unzip apache-openmeetings-5.0.0-M1.zip

...save the original file to /opt:

sudo mv apache-openmeetings-5.0.0-M1.zip /opt

11)

------ Installation connector OpenMeetings with MariaDB ------

This file-driver is need it to connect OpenMeetings with MariaDB. Download and install it:

cd /opt

(Only one line without space between both)

sudo wget http://repo1.maven.org/maven2/mysql/mysql-connector-java/8.0.15/mysql-connector-java-8.0.15.jar

sudo cp mysql-connector-java-8.0.15.jar /opt/open500/webapps/openmeetings/WEB-INF/lib

12)

------ Script to launch Tomcat-OpenMeetings ------

We´ll download the script to run Tomcat-OpenMeetings:

cd /opt

sudo wget https://cwiki.apache.org/confluence/download/attachments/27838216/tomcat3

...copy it to where must be:

sudo cp tomcat3 /etc/init.d/

...and concede execution permission:

sudo chmod +x /etc/init.d/tomcat3

If you made the installation in any other different path to /opt/open500, please edit the script and modify the line:

CATALINA_HOME=/opt/open500

...to

CATALINA_HOME=/your-path-installation

13)

------ Run Tomcat-OpenMeetings ------

Run MariaDB:

sudo systemctl start mariadb.service
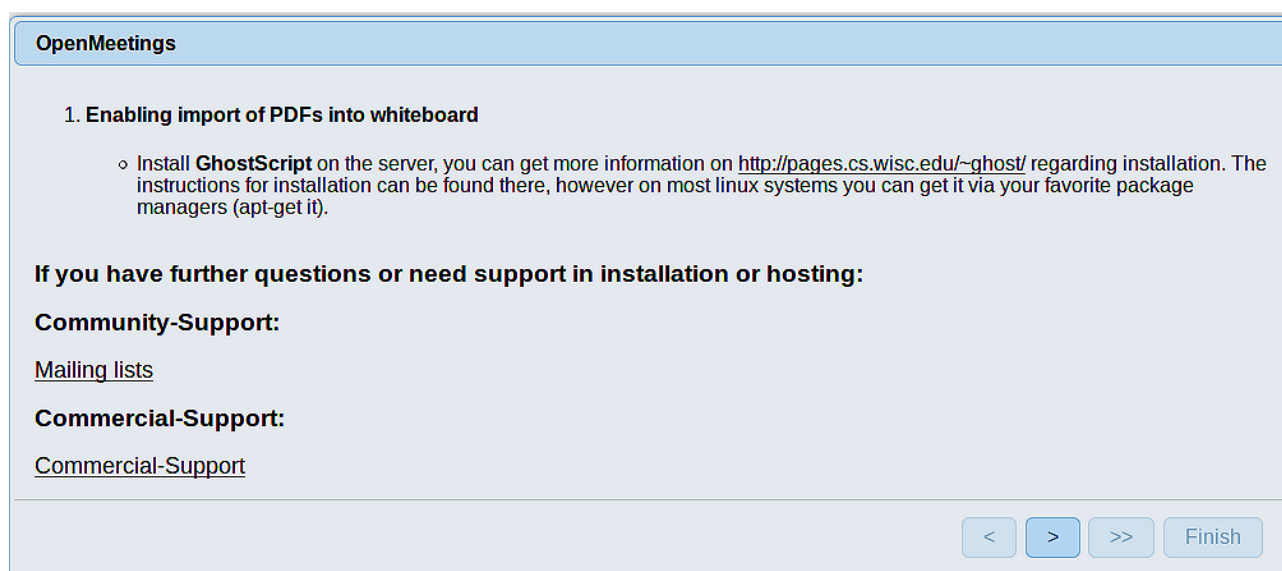
...and Tomcat-OpenMeetings:

sudo /etc/init.d/tomcat3 start

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

http://localhost:5080/openmeetings/install

...there will show 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 database configuration with Derby, but we

employ MySQL (MariaDB):

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

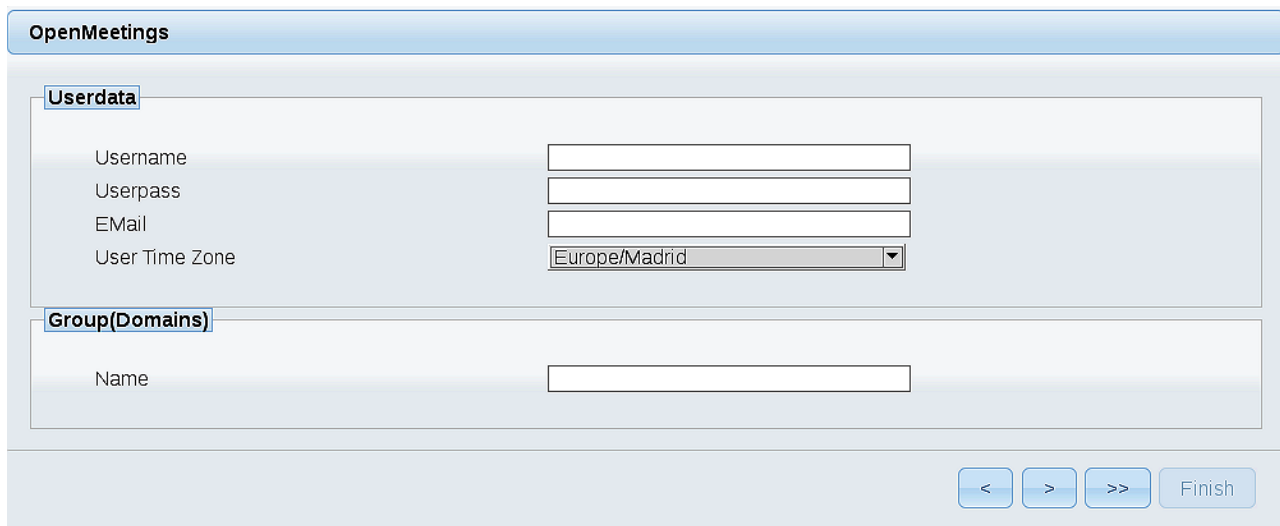Now we must introduce the database name, the user name and his password we did at the step 9:

Specify the name of the database = open500

Specify DB user = hola

Specify DB password = 1a2B3c4D

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

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 name 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

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

`<` `>` `>>` `Finish`

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 MailServer Auth	==	...turn green the button to activate

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

Default Language	==	...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 ⓘ	150
Document conversion JPEG Quality ⓘ	90
ImageMagick Path ⓘ	[ ] Check
FFMPEG Path ⓘ	[ ] Check
SoX Path ⓘ	[ ] Check
OpenOffice/LibreOffice Path for jodconverter ⓘ	[ ] Check

see also Installation

| < | > | >> | Finish |

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

ImageMagick Path	==	/usr/bin
FFMPEG Path	==	/usr/bin
SOX Path	==	/usr/bin
OpenOffice/LibreOffice Path for jodconverter	== /usr/lib/libreoffice	**(32bits)**
	== /usr/lib64/libreoffice	**(64bits)**

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 (be connected to Internet):

/etc/init.d/tomcat3 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 you can click on **Enter the Application** and it will take you to the OpenMeetings entry.
But wait before entering OpenMeetings, we have to install Docker and Kurento-Media-Server,
something we will do in the next steps, so that you can have access to the camera, micro,
recording and desktop sharing in the room

14)

------ Installation of Docker ------

Docker will be the recipient of Kurento media server**.** First we install some neccessary libraries:

sudo dnf -y install dnf-plugins-core

...add docker repo:

sudo dnf config-manager --add-repo https://download.docker.com/linux/fedora/docker-ce.repo

...update:

sudo dnf update

...install docker:

sudo dnf install docker-ce docker-ce-cli containerd.io

...should ask if we accept, press **y** and **Enter**,

...run it:

sudo systemctl start docker.service

Add your user system name to docker group and so can run docker without be root.
Replace user by your real system user name:

sudo gpasswd -a user docker

...stop tomcat, mariadb and docker:

sudo /etc/init.d/tomcat3 stop

sudo systemctl stop mariadb.service

sudo systemctl stop docker.service

…and reboot the machine. After this, follow in the step 15:

sudo reboot

15)

------ Installation of Kurento-Media-Server ------

After had rebooted the computer, we´ll install Kurento-Media-Server need it for cam, mic-audio, recordings and share dektop in room.

First run docker:

sudo systemctl start docker.service

...and install kurento-media-server:

(Only one line, with space between 1 and 2, and without space between 2 and 3)

sudo docker run -d --name kms -p 8888:8888 --mount type=bind,source=/opt/open500/webapps/openmeetings/data,target=/opt/open500/webapps/openmeetings/data kurento/kurento-media-server

Run kurento-media-server, wich name its kms:

sudo docker start kms

...and run also MariaDB and tomcat-OpenMeetings:

sudo systemctl start mariadb.service

sudo /etc/init.d/tomcat3 start

...wait around 40 seconds to tomcat run completly.

Now you can access OpenMeetings with all the functions at your disposal.

Clic the link down and type the user name and his password to login:

http://localhost:5080/openmeetings

or

https://localhost:5443/openmeetings

To connect to this server from Internet or LAN is neccesary open the following ports:
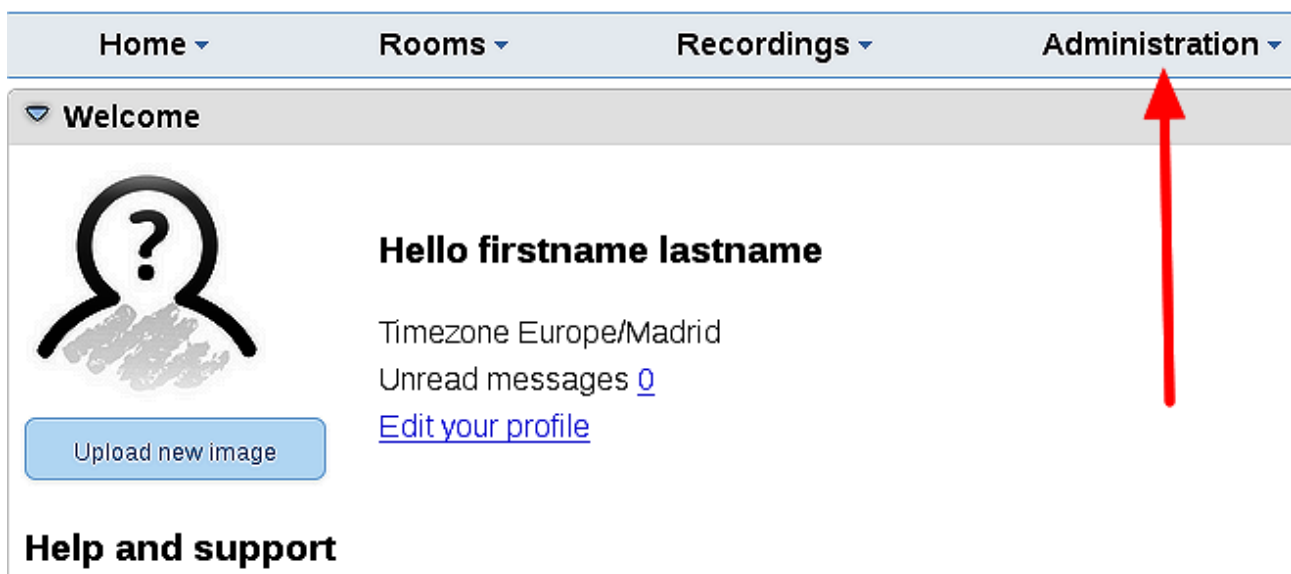
http = **5080 8888** ------- https = **5443 8888**

16)

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

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:

17)

------ Order to run the servers ------

Once finished the installation of OpenMeetings, the next time you run the servers, please do it in this order:

sudo systemctl start mariadb.service   ..MariaDB data server

sudo systemctl start docker.service   …Docker, recipiente de Kurento media server

sudo docker start kms   ...Kurento media server

sudo /etc/init.d/tomcat3 start   ...Tomcat-OpenMeetings

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

http://openmeetings.apache.org/mailing-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 downoload:

Download

Thank you.

Alvaro Bustos