Installation of Apache OpenMeetings 5.0.0-M1 on Centos 7

This tutorial is made based on fresh installations of

CentOS-7-x86_64-Minimal-1708.iso

 My sincere thanks to Maxim Solodovnik for his help,
without which i could not have finished this tutorial
satisfactorily.

It is made stepby step.

28-3-2019

Starting...

1)

We access to terminal as root::

su

….will ask for root password.

Install nano editor:

yum install -y nano

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.

Now will change the selinux configuration, enforcing to permissive:

nano /etc/selinux/config

…modify:

SELINUX=enforcing

...to

SELINUX=**permissive**

Update the system:

yum update -y

...and reboot the machine to get effect the changes. After reboot continue at step 2:

reboot

2)
                              ------ ADD Repos ------

sudo yum install -y wget

EPEL:

sudo wget http://epel.mirror.nucleus.be/7/x86_64/Packages/e/epel-release-7-11.noarch.rpm

sudo rpm -Uvh epel-release-7*.rpm

Nux

(Only one line without space between both)

sudo rpm -Uvh http://li.nux.ro/download/nux/dextop/el7/x86_64/nux-dextop-release-0-5.el7.nux.noarch.rpm

3)

------ Installation of OpenJava 1.8 ------

Java **1.8** is necessary for OpenMeetings **5.0.0**. We install OpenJava 1.8:

sudo yum install -y java-1.8.0-openjdk

Maybe you have installed various versions of Java. We select the just installed OpenJava 1.8:

sudo update-alternatives --config java

And to see if the selected version is active:

java -version

4)

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

OpenMeetings will need LibreOffice to convert to pdf the uploaded office files. Install it.

Maybe it is installed, but for iso server:

sudo yum -y install libreoffice libreoffice-headless

5)

------ Installation of Ghostscript, necessary packages and libraries ------

Will install packages and libraries we´ll need later:

(All in only one line. A space between 1ªand 2ª. Thogether 2ª and 3ª)

sudo yum install -y libjpeg libjpeg-devel ghostscript freetype freetype-devel unzip gcc gcc-c++ ncurses ncurses-devel make zlib zlib-devel libtool bison bison-devel openssl-devel bzip2 bzip2-devel file-roller git autoconf automake pkgconfig tomcat-native nmap vlc

We acces to terminal as root:

su

...will ask for root password.

With a script we should compile Ghostscript 9.26, free of security hole:

cd /opt

wget https://cwiki.apache.org/confluence/download/attachments/27838216/ghostscript.sh

chmod +x ghostscript.sh

...and run it:

./ghostscript.sh

...when be finished will announce it: GhostScript compilation is Finished!

rm -Rf /opt/ghostscript-9.26

6)
------ Installation ImageMagick and Sox ------

ImageMagick, work the images files jpg, png, gif, etc. We install it and some libraries:

yum install -y ImageMagick giflib giflib-devel giflib-utils

Sox, work the sound. Will compile it:

wget http://ftp.icm.edu.pl/packages/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

cd /opt

7)

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

FFmpeg work with video. Will install a paquets, libraries and vlc to play the recordings:

(Only one line without space between them)

yum install -y glibc alsa-lib-devel faac faac-devel faad2 faad2-devel gsm gsm-devel imlib2 imlib2-devel lame-devel vorbis-tools theora-tools libvpx-devel vlc autoconf automake cmake freetype-devel gcc gcc-c++ git libtool make mercurial pkgconfig zlib-devel curl

This ffmpeg compilation is based on this url:

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

I made a script to compile and install ffmpeg on CentOS. It is tested and is ok.
The result of any recording we do in OpenMeetings will be in mp4 format.

When is finished, will appear a text:

FFmpeg Compilation is Finished!

So, we download the script:

cd /opt

wget https://cwiki.apache.org/confluence/download/attachments/27838216/ffmpeg_centos7.sh

...concede execution permission to it:

chmod +x ffmpeg_centos7.sh

...and run it. The compilation will spend about 30 minutes:

./ffmpeg_centos7.sh

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

When finish, please continue in the next step.

8)

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

Exit as root:

exit

MariaDB is the database server. We install it:

sudo yum install -y mariadb-server

...and run mariadb:

sudo systemctl start mariadb.service

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

sudo mysqladmin -u root password new-password

Make a database for OpenMeetings. User password must be of 8 digits minimum:

sudo mysql -u root -p

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

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

Now we create a user with all permission on this open408 database.

(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 exit MariaDB:

MariaDB [(none)]> quit

9)

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

We´ll install OpenMeetings in /opt/open500. All the following information will be based on this
directory.

Make the folder:

sudo mkdir /opt/open500

cd /opt/open500

...and download the OpenMeetings file:

(Only one line without space between each one)

sudo wget https://builds.apache.org/view/M-R/view/OpenMeetings/job/openmeetings/ lastSuccessfulBuild/artifact/openmeetings-server/target/apache-openmeetings-5.0.0-M1- SNAPSHOT.zip

sudo unzip apache-openmeetings-5.0.0-M1-SNAPSHOT.zip

...save the unloaded file to /opt:

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

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/8.0.15/mysql-connector- java-8.0.15.jar

...and copy it to where must be:

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

10)
------ 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/

...concede execution permission:

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

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

CATALINA_HOME==/opt/open500

...to

CATALINA_HOME==/your-path-installation

11)

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

Restart MariaDB:

sudo systemctl restart mariadb.service
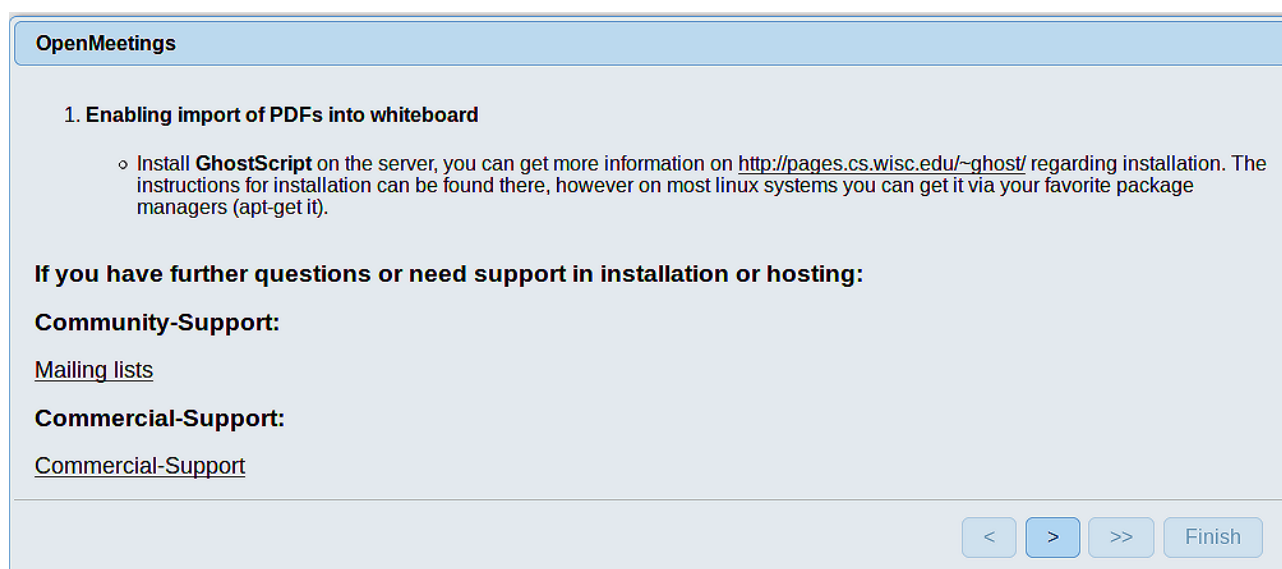
...and run tomcat-OpenMeetings:

sudo /etc/init.d/tomcat3 start

...wait a minimum of 40 seconds in order tomcat run completly. Then, go with your browser 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:
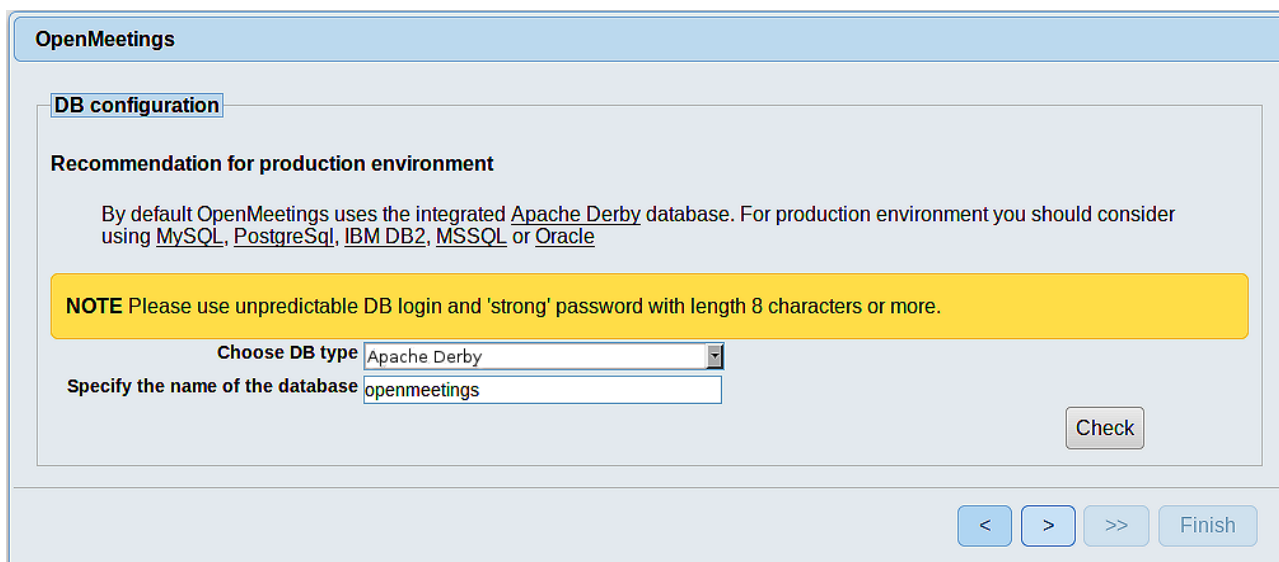
Mailing lists

Commercial-Support:

Commercial-Support

| < | > | >> | Finish |

...push on > (bottom), and will show the default database configuration with Derby, but we

employ MySQL (MariaDB):

OpenMeetings

DB configuration

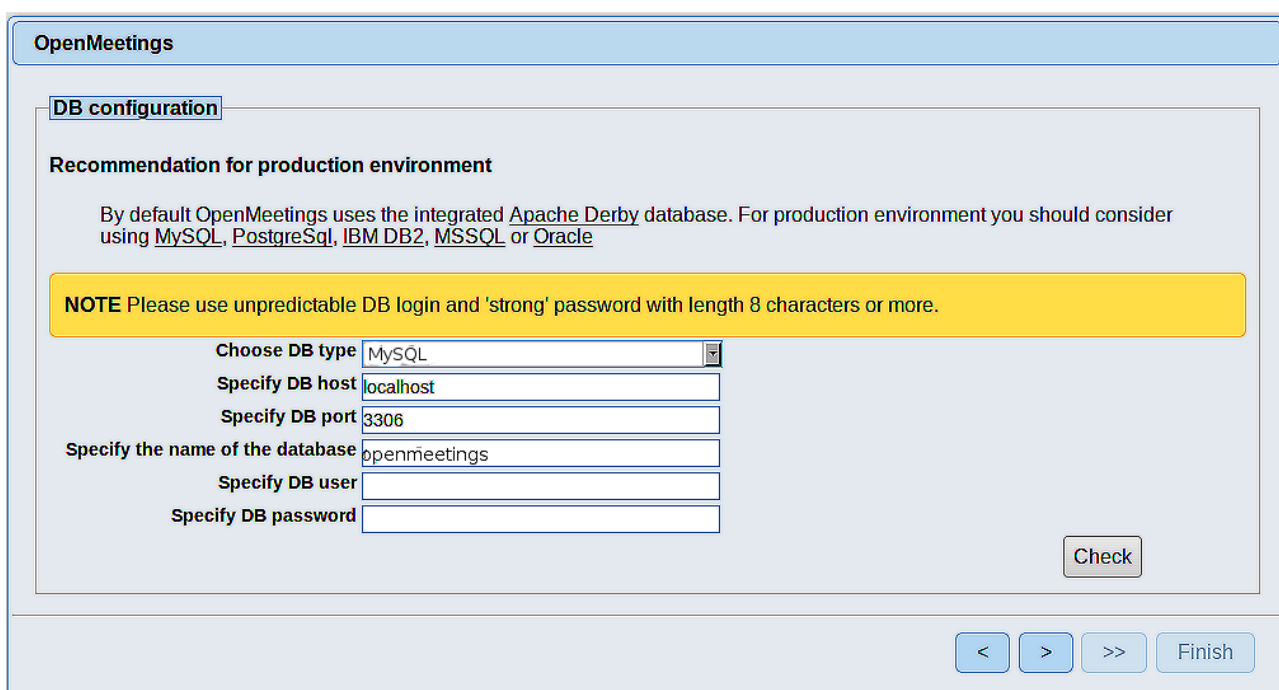**Recommendation for production environment**

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 Apache Derby

Specify the name of the database openmeetings

Check

< | > | >> | Finish

...so, 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 MySQL

Specify DB host localhost

Specify DB port 3306

Specify the name of the database openmeetings

Specify DB user

Specify DB password

Check

< | > | >> | Finish
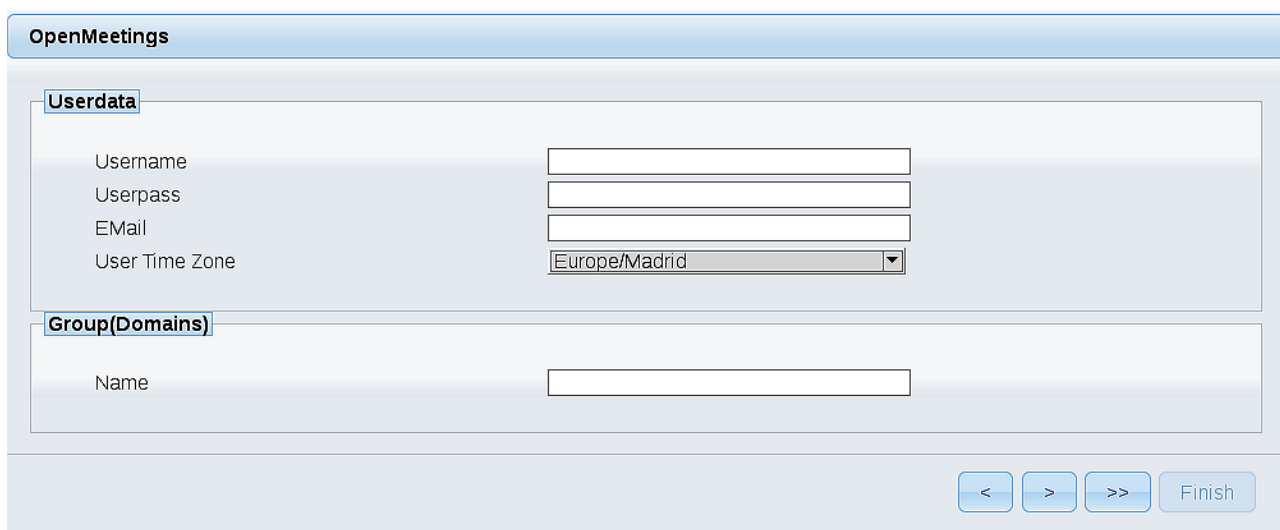
Here we must introduce the database name, user name and his password we did at the step 8:

Specify the name of the database = open500

Specify DB user =   hola

Specify DB password = 1a2B3c4D

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:

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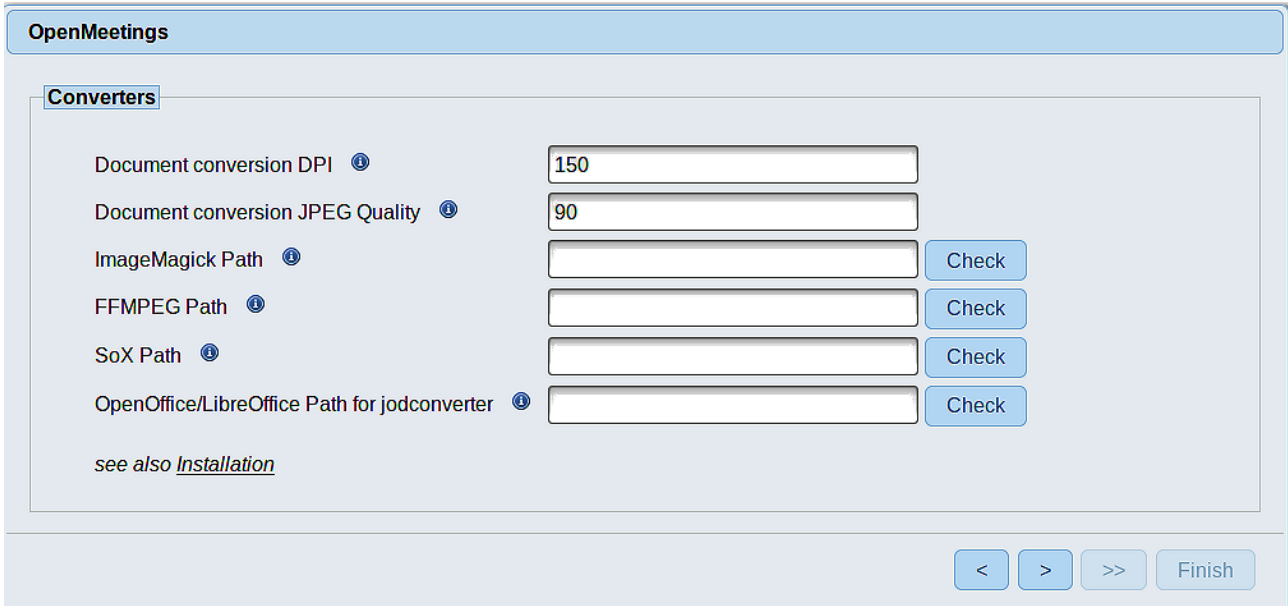
To select the language of your server OpenMeetings, please scroll on the line:

Default Language	==	...select your language

...the rest we can leave as is. If is necessary, can modify it as you like it:

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	==	/usr/bin
FFMPEG Path	==	/usr/local/bin
SOX Path	==	/usr/local/bin
OpenOffice/LibreOffice 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 |

Clic **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 tomcat server. Be connected to Internet:

sudo /etc/init.d/tocat3 restart

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

12)

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

First install some neccessary libraries:

sudo yum install -y yum-utils device-mapper-persistent-data lvm2

Add the Docker repo:

sudo yum-config-manager --add-repo https://download.docker.com/linux/centos/docker-ce.repo

...update:

sudo yum update

...install docker:

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

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 and mariadb:

sudo /etc/init.d/tomcat3 stop

sudo systemctl stop mariadb.service

…and reboot the machine. After this, follow in the step 13:

sudo reboot

13)

------ **Instalation 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 tomcat-OpenMeetings:

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 these ports:

http = **5080   8888** -------   https = **5443   8888**

14)

------ 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:

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

Also you can download if you like, a wallpaper of OpenMeetings for different devices as:
PC, Mac, Smartphone, iPhone and Tablets. Here is the link to downoload:

[Download](#)

Thank you

Alvaro Bustos