

# Installation of Apache OpenMeetings 7.0.0 on CentOS 8

This tutorial is made based on fresh installations of

# CentOS-8-x86\_64-1905-dvd1.iso

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

It is made step by step.

Starting...

1)

We access to terminal as root::

su

....will ask for root password.

Install nano editor:

## dnf 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

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

Update the system:

dnf update -y

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

reboot

2)

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

sudo dnf install -y wget

# EPEL:

sudo dnf install https://dl.fedoraproject.org/pub/epel/epel-release-latest-8.noarch.rpm

#### ## RPMFusion ##

sudo dnf install https://download1.rpmfusion.org/free/el/rpmfusion-free-release-8.noarch.rpm

3)

# ----- Installation of Java -----

Java is necessary for OpenMeetings 7.0.0. So we install OpenJava 17:

sudo dnf install -y java-17-openjdk

Maybe you have installed various versions of Java. Please select the just installed OpenJava 17:

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. We'll remove the old installed version and later install the new:

sudo dnf remove libreoffice\*

cd /opt

(Only one line without space between both)

sudo wget https://ftp.osuosl.org/pub/tdf/libreoffice/stable/7.4.3/rpm/x86\_64/ LibreOffice\_7.4.3\_Linux\_x86-64\_rpm.tar.gz

sudo tar -xvf LibreOffice\_7.4.3\*

cd LibreOffice\_7.4.3.2\*

sudo dnf localinstall RPMS/\*.rpm

cd /opt

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

Will install packages and libraries we'll need later:

(Only one line with space between each one of them)

sudo dnf install -y libjpeg libjpeg-devel freetype freetype-devel gcc gcc-c++ ncurses ncurses-devel make zlib zlib-devel libtool bison openssl-devel bzip2 bzip2-devel git autoconf automake pkgconfig vlc

We acces to terminal as root:

su

...will ask for root password.

With a script we should compile Ghostscript 9.52:

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-9.52

6)

## ----- Installation ImageMagick and Sox -----

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

dnf install -y ImageMagick giflib

Sox, work the sound. Will compile it:

wget http://ftp.icm.edu.pl/packages/sox/14.4.2/sox-14.4.2.tar.gz

5)

tar xzvf sox-14.4.2.tar.gz cd /opt/sox-14.4.2 ./configure make && make install cd /opt

7)

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

FFmpeg work with the video. Will install a neccesary paquet SDL2 before:

(Only one line without space between both)

dnf install https://archives.fedoraproject.org/pub/archive/epel/7/x86\_64/Packages/s/SDL2-2.0.10-1.el7.x86\_64.rpm

...and now ffmpeg:

dnf install ffmpeg

8)

# ----- Installation of MariaDB data base server -----

Exit as root:

exit

MariaDB is the data base server. We install it:

sudo dnf 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 open700 DEFAULT CHARACTER SET 'utf8';

Now we create a user with all permission on this open700 database.

(Only one line with space between both)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON open700.\* TO 'hola'@'localhost' IDENTIFIED BY 'la2B3c4D' WITH GRANT OPTION;

\* open700 .....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/open700. All the following information will be based on this directory:

#### cd /opt

...download the OpenMeetings file:

sudo wget https://archive.apache.org/dist/openmeetings/7.0.0/bin/apache-openmeetings-7.0.0.tar.gz

sudo tar xzvf apache-openmeetings-7.0.0.tar.gz

...and rename the obtained folder:

sudo mv apache-openmeetings-7.0.0 open700

Download and install the connector between OpenMeetings and MariaDB:

# (Only one line without space between both)

sudo wget https://repo1.maven.org/maven2/mysql/mysql-connector-java/8.0.30/mysql-connector-java-8.0.30.jar

...and copy it to where must be:

sudo cp /opt/mysql-connector-java-8.0.30.jar /opt/open700/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/tomcat34

...copy it to where must be:

sudo cp tomcat34 /etc/init.d/

...concede execution permission:

sudo chmod +x /etc/init.d/tomcat34

If you made the installation in any other path to /opt/open700, please edit the script and modify the line:

CATALINA HOME==/opt/open700

...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/tomcat34 start

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

https://localhost:5443/openmeetings/

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

OpenMeetings - Installation	
1. Enabling import of P	DFs into whiteboard
	ne server, you can get more information on http://pages.cs.wisc.edu/~ghost/ regarding installation. The instructions for installation can on most linux systems you can get it via your favorite package managers (apt-get it).
f you have further questions	or need support in installation or hosting:
Community-Support:	
Mailing lists	
Commercial-Support:	
Commercial-Support	

...push on "Next >" (bottom), and will show the default database configuration with H2, but we employ MySQL (MariaDB):

OpenMeetings - Installation		
		DB configuration
Recommendation for product	ion environment	
3y default OpenMeetings uses the integrate	d H2 database. For production environment you should consider using MySQL, Po	stgreSql, IBM DB2, MSSQL or Oracle
NOTE Please use unpredictable DB logi		
Choose DB type	H2 \$	
Choose DB type Specify the name of the database	H2 \$	
		СНЕСК
		СНЕСК
		СНЕСК

...so, scroll and "Choose DB type" to MySQL:

OpenMeetings - Installation	
	DB configuratio
Recommendation for product	tion environment
By default OpenMeetings uses the integrate	ed H2 database. For production environment you should consider using MySQL, PostgreSql, IBM DB2, MSSQL or Oracle
NOTE Plaase use uppredictable DR log	in and 'strong' password with length 8 characters or more.
NOTE Please use unpredictable DB log	in and surving password with rengin o characters of more.
ci	
Choose DB type	MySQL +
Specify DB host	localhost
Specify DB port	3306
Specify the name of the database	openmeetings
Specify DB user	
Specify DB user Specify DB password	
	СНЕСК

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

Specify the name of the database	=	open700
Specify DB user	=	hola
Specify DB password	=	1a2B3c4D

Please, press "Next >" button and will go to:

	Userdata
Username	
Userpass	
EMail	
User Time Zone Europe/Madrid \$	
	Group(Domains)
Name	

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-namethis user will be administrator.
Userpass	=	a-password for the previous user.
Email	=	email-adress of the previous user.
User Time	Zo	<b>ne</b> = country where is this server
Name	=	example-openmeetingsgroup name to choose.

Press the button "**Next** >" 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 - Installation	
	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 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 English 🗢	
< PREVIOUS NEXT > LAST FINISH	

A valid example to configure the mail server with Gmail, is as follows:

(replace john@gmail.com with your real Gmail account)

J

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

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

OpenMeetings - Installation		
		Converters
Document conversion DPI (150		
Document conversion JPEG Quality		
<b>9</b> 0		
ImageMagick Path 🚺	СНЕСК	
FFMPEG Path 1	СНЕСК	
SoX Path (1)	СНЕСК	
OpenOffice/LibreOffice Path for		
jodconverter (1)	CHECK	
see also Installation		

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

ImageMagick Path	==	here empty
FFMPEG Path	==	here empty
SOX Path		/usr/local/bin
OpenOffice/LibreOffice Path for jodconverter		/opt/libreoffice7.4

As you go introducing paths, you can check if they are correct by pressing the button labeled **Check**.

Once completed the paths, please click the "**Next** >" button and move on to another page. We will leave it as is:

OpenMeetings - Installation	
	Crypt Type
Crypt Class 1 org.apache.openmeetings.util.crypt.	
	red5SIP Configuration
Enable SIP ()	
SIP rooms prefix () 400	
SIP extensions context () rooms	

Now push the button "**Next** >" Will show this window:

Solution Compared to the second secon					
	OpenMeetings - Installation				
	Please click "Finish" button to start installation!				
	< PREVIOUS NEXT > LAST 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/tomcat34 restart

Contractings				
OpenMeetings - Installation				
Enter the Application				
Database was changed, please restart application to avoid possible issues				
Mailing list				
https://openmeetings.apache.org/mailing-lists.html				
There are some companies that also offer commercial support for Apache OpenMeetings:				
https://openmeetings.apache.org/commercial-support.html				
< PREVIOUS NEXT > LAST 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 you can have access to the camera, micro, recording and desktop sharing in the room

Login Username or mail address
Password     Remember login Forgotten your password?
privacy statement Network testing

# 12) ------ Installation of Podman ------

Podman will be the recipient for Kurento-Media-Server. We install it:

sudo dnf install podman

...stop tomcat and mariadb:

sudo /etc/init.d/tomcat34 stop

sudo systemctl stop mariadb.service

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

sudo reboot

13)

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

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

First run podman:

sudo systemctl start podman.service

...and now we'll install kurento-media-server. But first we'll create the folder where will be the video recorder files we should make in rooms, as well as the uploaded files and documents:

sudo mkdir -p /opt/om\_data

...and install kurento:

(Only one line, with space between both)

sudo podman run -d --name kms -p 8888:8888 --mount type=bind,source=/opt/om data,target=/opt/om data kurento/kurento-media-server

(when ask, please select the line that say docker.io/kurento/...).

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

sudo podman start kms

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

sudo systemctl start mariadb.service

sudo /etc/init.d/tomcat34 start ...wait around 30 seconds to tomcat run completly.

Now you can access OpenMeetings.

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

# https://localhost:5443/openmeetings

# After installing OpenMeetings, you still need to install Coturn (Turn server), for which you can download the following tutorial and follow it from step 5:

Installation SSL certificates and Coturn for OpenMeetings 7.0.0 on CentOS 8

## 14)

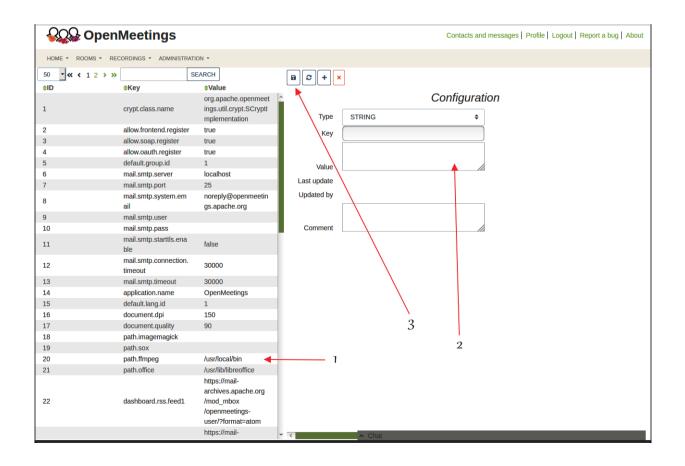
----- OpenMeetings's configuration ------

Once you acced to OpenMeetings, if you would like to do any modification in the configuration, please go to:

## Administration $\rightarrow$ Configuration

Solution Compared Strength Com	Contacts and messages   Profile   Logout   Report a bug   About					
▼ Welcome	<u>^</u>					
Hello firstname lastname Timezone Europe/Berlin Unread messages 0 Edit your profile Help and support Project website (https://openmeetings.apache.org/ User mailing list (https://openmeetings.apache.org/mailing-lists.html) Network testing Check setup						
▼ My rooms						
My conference room (for 1-16 users) Users 0 / 25 My presentation room (for 1-120 users) Users 0 / 120 Users 0 / 120 Users in this room						
Admin functions						
Admin functions						
SHOW CLEANUP REPORT	hat					

...and following the order of the red arrows:



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



https://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:

**OpenMeetings Wallpaper Download** 

A dvd live iso with OpenMeetings 7.0.0 on Ubuntu 18.04 lts, it is at your disposal.

Can find it here:

Live iso download

Thank you

Alvaro Bustos (PMC and Committer at Apache OpenMeetings).