

# Installation of Apache OpenMeetings 4.0.6 on Windows 10

This tutorial is made based on a fresh installations of

# Windows 10 64bit

It is tested with positive result. We will use the Apache's binary version OpenMeetings 4.0.6 stable, that is to say will suppress his compilation. It is done step by step.

15-10-2018

Starting...

1)

----- Installation of Ghostscript and 7-Zip -----

Download ghostscript and 7-Zip:

http://info.elf.stuba.sk/packages/pub/pc/utiltext/gs926w64.exe

http://www.7-zip.org/a/7z1805-x64.exe

...please, install both programs by default.

2)

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

OpenMeetings 4.0.6 need Java 1.8 to work. So, we install Oracle Java 1.8.

We download it:

http://enos.itcollege.ee/~jpoial/allalaadimised/jdk8/jdk-8u181-windows-x64.exe

Please, install it by default..."jdk-8u181-windows-x64.exe".

# 3)

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

LibreOffice is need it to convert to pdf the uploaded office files.

We download it:

http://archive.services.openoffice.org/pub/mirror/ALL\_primary\_servers/rsync/ rsync.documentfoundation.org/tdf-pub/libreoffice/stable/6.0.4/win/x86\_64/ LibreOffice\_6.0.4\_Win\_x64.msi

...and install it by default.

4)

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

ImageMagick, will work the image files, png, jpg, gif, etc. We download it:

http://ftp.icm.edu.pl/packages/ImageMagick/binaries/ImageMagick-7.0.7-17-portable-Q16-x64.zip

...uncompress it in <u>C:\</u>. Will look so:

C:\ImageMagick-7.0.7-17-portable-Q16-x64

Sox, work the sound. We'll download it:

http://sourceforge.mirrorservice.org/s/so/sox/sox/14.4.2/sox-14.4.2-win32.exe

...and install it by default.

# 5)

### ----- Installation of Adobe Flash Player -----

OpenMeetings even need Adobe Flash Player for cam and audio. We install it

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

...unmark "**Optional oferts**", and press the button "**Install now**". Will download a file that we must install it.

6)

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

I've based at this url to compile ffmpeg:

http://www.thingsiuse.org/2014/06/building-ffmpeg-for-h264-and-aac.html

Make a folder called **ffb** in the root drive C: or your own. The path look so:

### C:\ffb

Download the necesary base to compile (71mb size):

http://xhmikosr.1f0.de/tools/msys/MSYS\_MinGW-w64\_GCC\_710\_x86-x64\_Full.7z

Uncompress this file, and inside will find a folder called **MSYS**, move it to C:\ffb. Look so:

### C:\ffb\MSYS

...we go there to, and launch msys.bat file:

### C:\ffb\MSYS\msys.bat

...will open a terminal and will create automatically two folders called **home** and other with the name of the Windows user. Look so:

### $C:\ffb\MSYS\home\your-user$

### A)

Download the files and move them to: C:\ffb\MSYS\home\your-user

http://sourceforge.mirrorservice.org/l/la/lame/lame/3.100/lame-3.100.tar.gz

https://sourceforge.mirrorservice.org/o/op/opencore-amr/fdk-aac/fdk-aac-0.1.6.tar.gz

https://download.videolan.org/x264/snapshots/x264-snapshot-20180613-2245.tar.bz2

http://ffmpeg.org/releases/ffmpeg-4.0.tar.bz2

...remember move them.

#### B)

Start the compilation. Spend about 30 to 40 minutes.

Launch the file C:\ffb\MSYS\msys.bat, if the terminal is not open, and copy and paste:

----- Lame -----

tar xvfz lame-3.100.tar.gz

cd ~/lame-3.100

#### (Only one line with space between both)

./configure --prefix=/usr/local/x86\_64-w64-mingw32 --host=x86\_64-w64-mingw32 --enable-static --disable-shared --disable-decoder --enable-nasm

make clean && make

make install

 $cd \sim$ 

----- Fdk-aac -----

tar xvfz fdk-aac-0.1.6.tar.gz

cd ~/fdk-aac-0.1.6

(Only one line without space between both)

./configure --prefix=/usr/local/x86\_64-w64-mingw32 --host=x86\_64-w64-mingw32 --enable-shared=no

make clean && make

make install

 $cd \sim$ 

----- X-264 -----

tar xvjf x264-snapshot-20180613-2245.tar.bz2

cd ~/x264-snapshot-20180613-2245

(Only one line without space between both)

./configure --prefix=/usr/local/x86\_64-w64-mingw32 --cross-prefix=x86\_64-w64-mingw32 -host=x86\_64-w64-mingw32 --enable-static --bit-depth=8 --enable-win32thread

make clean && make

make install

 $cd \sim$ 

----- FFmpeg -----

tar xvjf ffmpeg-4.0.tar.bz2

cd ~/ffmpeg-4.0

(Only one line. The red text is a command. Lines 3 and 4 with space between both)

CPPFLAGS="\$CPPFLAGS -I/usr/local/x86\_64-w64-mingw32/include" ./configure --extraldflags='-L/usr/local/x86\_64-w64-mingw32/lib' --prefix=/usr/local/x86\_64-w64-mingw32 --crossprefix=x86\_64-w64-mingw32- --target-os=mingw32 --enable-w32threads --arch=x86\_64 --enable-runtime-cpudetect --disable-debug --enable-static --disable-shared --disable-ffplay -enable-gpl --enable-version3 --enable-nonfree --enable-libmp3lame --enable-libfdk-aac --enablelibx264

....wait...and don't press any key after Enter. It is compiling, even look stoped.

make clean && make

make install

cd ~

....the compilation of FFmpeg is Finished.

You can find the compiled files in:

 $C:\fb\MSYS\local\x86_64-w64-mingw32\bin$ 

...these are: ffmpeg.exe, ffprobe.exe, lame.exe and x264.exe

Now we make a folder called **ffmpeg** at **C**:. Look so:

C:\ffmpeg

...and copy the four compiled files to there. Later we'll configure his path.

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

MariaDB is the data server. Will download:

http://archive.mariadb.org/mariadb-10.2.15/winx64-packages/mariadb-10.2.15-winx64.msi

...and install the file unloaded "**mariadb-10.2.15-winx64.msi**". Install it by default, and will ask for a root MariaDB password, choose one that you like:

🔀 User settings	_		×
Default instance properties MariaDB 10.2 (x64) database configuration		Maria	DB
Modify password for database user 'root'			
Confirm: Retype the	oot password password		
'root' user			
Use UTF8 as default server's character set			
Back	Next	Cano	el

When finish, launch the MariaDB terminal:

# Start Menu → MariaDB 10.2 (x64) --> Command Prompt (MariaDB 10.2)

...make a database with his own user for OpenMeetings:

# mysql -u root -p

...will ask for the root password that you have just choosen, type it:

MariaDB [(none)]> CREATE DATABASE open406 DEFAULT CHARACTER SET 'utf8';

With this command we has created a database called open406. Now we create an user on this database. User password must be of 8 digits minimum:

(Only one line with space between both)

# MariaDB [(none)]> GRANT ALL PRIVILEGES ON open406.\* TO 'hola'@'localhost' IDENTIFIED BY 'la2B3c4D' WITH GRANT OPTION;

- \* open406 .....is the database name.
- \* hola .....is the user name for this database.
- \* 1a2B3c4D ...is the password for this user.

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

Now, we leave MariaDB:

MariaDB [(none)]> quit

#### 8)

#### ----- Environment Variables Configuration ------

Now we configure "Environment Variables", so Windows will know where find Java and MariaDB.

# Please go to: Control Panel $\rightarrow$ System and security $\rightarrow$ System $\rightarrow$ Advanced System Configuration $\rightarrow$ Environment Variables

System Propertie	es					×
Computer Name	Hardware	Advanced	System Prot	ection	Remote	•
You must be lo	gged on as a	an Administra	orto make m	nost of th	iese cha	nges.
Visual effects	, processor s	cheduling, m	emory usage,	, and virt	ual mem	ory
				. :	Settings.	
User Profiles						
Desktop setti	ngs related to	o your sign-in				
				:	Settings.	
-Startup and F	Recovery					
System startu	p, system fai	lure, and deb	ugging inform	ation		
					Settings.	
			- En	vironmer	nt Variab	les
		ОК	С	ancel		Apply

...will show this window:

Variable	Value
OneDrive	C:\Users\guadalen\OneDrive
Path	C:\Users\guadalen\AppData\Local\Microsoft\WindowsApps;
TEMP	C:\Users\guadalen\AppData\Local\Temp
TMP	C:\Users\guadalen\AppData\Local\Temp
	New Edit Delete
stem variables	
Variable	Value
Variable ComSpec	Value C:\WINDOWS\system32\cmd.exe
ComSpec	C:\WINDOWS\system32\cmd.exe
ComSpec NUMBER_OF_PROCESSORS	C:\WINDOWS\system32\cmd.exe 8
ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT	C:\WINDOWS\system32\cmd.exe 8 Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb .COM;.EXE;.BAT;.CMD;.VBS;.VBE;JS;JSE;.WSF;.WSH;.MSC
ComSpec NUMBER_OF_PROCESSORS OS Path	C:\WINDOWS\system32\cmd.exe 8 Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb .COM;.EXE;.BAT;.CMD;.VBS;.VBE;JS;JSE;.WSF;.WSH;.MSC
ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT	C:\WINDOWS\system32\cmd.exe 8 Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb .COM;.EXE;.BAT;.CMD;.VBS;.VBE;JS;JSE;.WSF;.WSH;.MSC

...press the up button "New" and make a variable:

Variable name	==	JAVA_HOME	
Variable value	==	C:\Program Files\Java\jdk1.8.0	181

New User Variable		×
Variable name:	JAVA_HOME	
Variable value:	C:\Program Files\Java\jdk1.8.0_181	
Browse Directory	Browse File	OK Cancel

...and press "OK" button.

Now make click in: System variables  $\rightarrow$  clic on Path (line), and later in Edit button

ser variables for guadalen			
Variable	Value		
OneDrive	C:\Users\guadalen\OneDrive		
Path	C:\Users\guadalen\AppData\Local\Microsoft\WindowsApps;		
TEMP	C:\Users\guadalen\AppData\Local\Temp		
TMP	C:\Users\guadalen\AppData\Local\Temp		
		_	
	New Edit Delete	_	
	New Edit Delete		
		-	
ystem variables			
ystem variables Variable	Value	^	
Variable	Value C:\WINDOWS\system32\cmd.exe	^	
		^	
Variable ComSpec	C:\WINDOWS\system32\cmd.exe	^	
Variable ComSpec NUMBER_OF_PROCESSORS	C:\WINDOWS\system32\cmd.exe 8 1	^	
Variable ComSpec NUMBER_OF_PROCESSORS OS	C:\WINDOWS\system32\cmd.exe 8 <b>1</b> Windows_NT	^	
Variable ComSpec NUMBER_OF_PROCESSORS OS Path	C:\WINDOWS\system32\cmd.exe 8 <b>1</b> Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb	^	
Variable ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT	C:\WINDOWS\system32\cmd.exe  8  Vindows_NT  C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\WbCOM;.EXE;.BAT;.CMD;.VBE;.VBE;.JS;.JSE;.WSF;.WSH;.MSC	~	
Variable ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT PROCESSOR_ARCHITECTURE	C:\WINDOWS\system32\cmd.exe 8 <b>1</b> Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\WbCOM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC AMD64	~	
Variable ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT PROCESSOR_ARCHITECTURE	C:\WINDOWS\system32\cmd.exe 8 <b>1</b> Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\WbCOM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC AMD64	~	
Variable ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT PROCESSOR_ARCHITECTURE	C:\WINDOWS\system32\cmd.exe 8 Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC AMD64 Intel64 Family 6 Model 158 Stepping 9. GenuineIntel		
Variable ComSpec NUMBER_OF_PROCESSORS OS Path PATHEXT PROCESSOR_ARCHITECTURE	C:\WINDOWS\system32\cmd.exe 8 Windows_NT C:\WINDOWS\system32;C:\WINDOWS;C:\WINDOWS\System32\Wb .COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.MSC AMD64 Intel64 Family 6 Model 158 Stepping 9. GenuineIntel	~	

...and will open a new window:

Edit environment variable	×
%SystemRoot%\system32         %SystemRoot%         %SystemRoot%\System32\Wbem         %SYSTEMROOT%\System32\WindowsPowerShell\v1.0\         C:\Program Files\MariaDB 10.2\bin         C:\Program Files\Java\jdk1.8.0_181\bin	New Edit Browse
	Delete Move Up
	Move Down
	Edit text

...press the button "New" and copy-paste, to left, the MariaDB path:

C:\Program Files\MariaDB 10.2\bin

...press again the button "New" and paste, to left, the Java path:

C:\Program Files\Java\jdk1.8.0\_181\bin

9)

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

Download the red5-OpenMeetings file:

http://archive.apache.org/dist/openmeetings/4.0.6/bin/apache-openmeetings-4.0.6.zip

...uncompress it in <u>C:\</u>. Look so:

C:\apache-openmeetings-4.0.6

...rename it to:

C:\red5406

Download and install the connector between MariaDB and OpenMeetings:

http://repo1.maven.org/maven2/mysql/mysql-connector-java/5.1.47/mysql-connector-java-5.1.47.jar

...and copy-install it to:

C:\red5406\webapps\openmeetings\WEB-INF\lib

10)

#### ----- Launch red5-OpenMeetings ------

Launch MariaDB, if is not. For that press in the keyboard:

Windows+x --> Execute --> type cmd

...will open a terminal where we type:

C:\WINDOWS\system32\services.msc

...will open the **Services** window. Go to **MySQL** (this is our MariaDB), right click on it and click on **Initialize**.

Now we launch red5-OpenMeetings. Please, double click on the file:

#### C:\red5406\red5.bat

...wait 40 seconds minimum, till red5 is running completly, later go to:

http://localhost:5080/openmeetings/install

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

OpenMeetings
1. Enabling import of PDFs into whiteboard
1. Enabling import of F DF3 into writeboard
<ul> <li>Install GhostScript on the server, you can get more information on <a href="http://pages.cs.wisc.edu/~ghost/">http://pages.cs.wisc.edu/~ghost/</a> 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).</li> </ul>
If you have further questions or need support in installation or hosting:
Community-Support:
Mailing lists
Commercial-Support:
Commercial-Support
< > >> Finish

...press on [>] button (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 <u>Apache Derby</u> database. For production environment you should consider using <u>MySQL</u> , <u>PostgreSql</u> , <u>IBM DB2</u> , <u>MSSQL</u> or <u>Oracle</u>
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

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

OpenMeetings		
DB configuration		
Recommendation for production	environment	
By default OpenMeetings use using <u>MySQL</u> , <u>PostgreSql, IB</u>	es the integrated <u>Apache Derby</u> database <u>M DB2, MSSQL</u> or <u>Oracle</u>	e. For production environment you should consider
	DB login and 'strong' password with leng	gth 8 characters or more.
Choose DB type	MYSQL	
Specify DB host	localhost	
Specify DB port		
Specify the name of the database	openmeetings	
Specify DB user		
Specify DB password		
		Check
		< > >> Finish

...will show the database name configuration by default.

We must introduce the database name, user name we did for our database, at the step 7, and his password:

Specify the name of the database	= open406
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-namethis user will be administrator.		
Userpass	= passwordfor the previous user.		
Email	= email-adress of the previous user.		
<b>User Time Zone</b> = country where is this server.			
Name	= example-openmeetingsgroup 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 v	
	< >> 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 Mail Server Auth		turn green the button to activate
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 0	150		
Document conversion JPEG Quality 🐠	90		
ImageMagick Path 🔞		Check	
FFMPEG Path 🕚		Check	
SoX Path 🐠		Check	
OpenOffice/LibreOffice Path for jodconverter 0		Check	
see also Installation			
		< >> Finish	

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

ImageMagick Path	==	C:\ImageMagick-7.0.7-17-portable-Q16-x64
FFMPEG Path	==	C:\ffmpeg
SOX Path	==	C:\Program Files (x86)\sox-14-4-2
OpenOffice/LibreOffice Path for jodconverter		C:\Program Files\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		
Сгурт Туре		
Crypt Class 🔘	org.apache.openmeetings.util.crypt.SCr	
red5SIP Configuration		
Enable SIP 🕘		
SIP rooms prefix (1)	400	
SIP extensions context 0	rooms	
		< > >> Finish

Push the button | > | and 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.

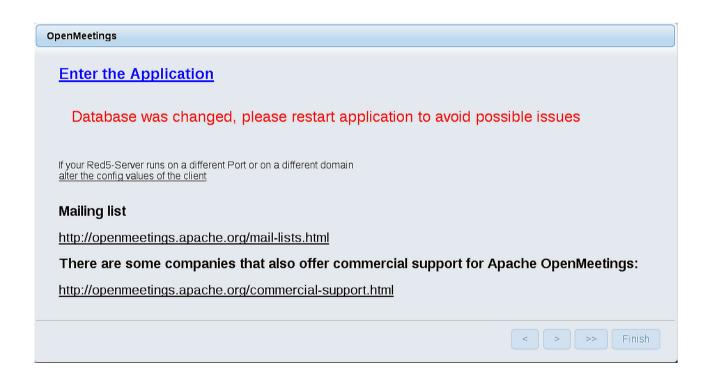
When has concluded, this another page will appear. Don't clic on <u>Enter the Application</u>. First is need it to restart the server. For that, click on the terminal where we launch red5-OpenMeetings, and press in the keyboard:

#### Ctrl+c

...will ask something, you type **Y** and press **Enter**. To launch again, double click on the **red5.bat** file:

#### C:\red5406\red5.bat

...wait a seconds to run red5 completly, and...



...now yes, you can click on **Enter the Application**, or go with your browser to:

http://localhost:5080/openmeetings

...and will take us to the entry of OpenMeetings:

Login	
Username or mail address	
Password	
	🗖 Remember login
Forgotten your password?	Network testing
	Not a member? Sign in

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 accede to OpenMeetings would be:

# http://localhost:5080/openmeetings

Remember to open in the server the two following ports:

#### 1935 5080

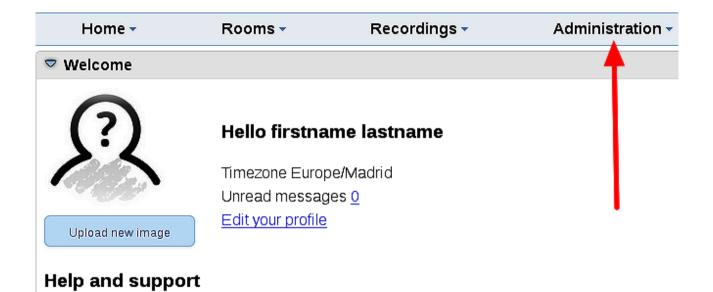
... in order that it could accede to OpenMeetings from other machines in LAN or Internet.

11)

### ----- 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



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

Н	ome 👻	Rooms 👻	Recordings -	Administration -
50	<b>T</b> 14	≪12 ↦ ы	Search )	🗎 🌣 🖶 💥
	≎ ID	≎ Key	≎ Value	Configuration
1		crypt.class.name	org.apache.openmeeting CryptImplementation	Type suing
2		allow.frontend.register	true	Key path.ffmpeg
3		allow.soap.register	true	Value
4		allow.oauth.register	true	Last update Oct 17, 2017 5:54:57 PM
5		default.group.id	1	Updated by toro
6		mail.smtp.server	localhost	Comment Path To FFMPEG
7		mail.smtp.port	25	Comment Paul to FFWFEG
8		mail.smtp.system.email	noreply@openmeetings.a	apache.org
9		mail.smtp.user		
10		mail.smtp.pass		
11		mail.smtp.starttls.enabl e	false	
12		mail.smtp.connection.ti meout	30000	
13		mail.smtp.timeout	30000	
14		application.name	OpenMeetings	
15		default.lang.id	8	3
16		document.dpi	150	
17		document.quality	90	
18		path.imagemagick		
19		path.sox		
20		path.ffmpeg		↓ 1 2
21		path.office		
22		dashboard.rss.feed1	http://mail-archives.apach /mod_mbox/openmeeting user/?format=atom	
23		dashboard.rss.feed2	http://mail-archives.apach /mod_mbox/openmeeting dev/?format=atom	•
24		send.email.at.register	false	
25		send.email.with.verficat ion	false	~

And this is all.

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

http://openmeetings.apache.org/mail-lists.html

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Thank you.

Alvaro Bustos