This Guide is intended to help users install and configure Open Meetings 2.X

Parts of the guide have been updated from the previous installation documentation from Alvaro Bustos – greenes. -Thanks

This guide has been written step by step with screenshots to aid in the successful build of OM.

SSL and Reverse proxy steps have been added but are optional.

Installing Debian (Minimal Headless System)

Step 1: - Base System



Choose 64 Bit install

	ect a language allation process. The selected language will led system. - No localization - Shqip - @+># - @+># - Asturianu - Euskara - BenapycKas - Bosanski - Bosanski - Bosanski - Català - 中文(简体) - 中文(简体) - Hrvatski - Čeština - Dansk - Nederlands - English - Esperanto - Eseti - Suomi - Français - Galego - Deutsch - EXANULKŐ	
<go back=""></go>		

Choose English

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[11] Colort your leastion
[!!] Select your location
The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.
This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.
Country, territory or area:
Antigua and Barbuda Australia Botswana Canada Hong Kong India Ireland Negeria Philippines Singapore South Africa United Kingdom United Kingdom United States Zimbabwe other
<go back=""></go>
ab> moves; <space> selects; <enter> activates buttons</enter></space>

Choose "United Kingdom"

	[!] Select a keyboard layout 🛏
	eymap to use:
	American English * Belarusian Belgian Brazilian (ABNT2 layout) Brazilian (EUA layout) Brazilian (EUA layout) British English Bulgarian Canadian French Canadian Multilingual Croatian Czech Danish Dutch Dvorak Estonian Finnish French German Greek Hebrew Hungarian Icelandic Italian Japanese Kirghiz Latin American * <go back=""></go>
<tab> moves; <space> selects; <enter< th=""><th>r> activates buttons</th></enter<></space></tab>	r> activates buttons

Choose "British English"

[!] Configure the network Please enter the hostname for this system. The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting
The hostname is a single word that identifies your system to the network. If you don't
up your own home network, you can make something up here. Hostname:
openmeetings
<go back=""> <continue></continue></go>
)> moves; <space> selects; <enter> activates buttons</enter></space>

Set the hostname, in this case its "openmeetings"

	[!] Configure the network
is often something that ends in	your Internet address to the right of your host name. It a .com, .net, .edu, or .org. If you are setting up a home g up, but make sure you use the same domain name on all
Domain name:	
yourdomain.internal	
<go back=""></go>	<continue></continue>
)> moves; ≺Space> selects; ≺Enter	> activates buttons

Set your domain, in this case we have used "yourdomain.internal"

	[!!] Set up us	ers and passwords	
unqualified user wit choose a root passwo		disastrous results, guess. It should no	
A good password will changed at regular i		etters, numbers and	punctuation and should be
			this empty, the root will be given the power to
Note that you will n	ot be able to see the p	assword as you type	it.
Root password:			
_			
<go back=""></go>			<continue></continue>

Set the root password.

[!!] Set up users and	l passwords
A user account will be created for you to use inst non-administrative activities.	ead of the root account for
Please enter the real name of this user. This info default origin for emails sent by this user as we the user's real name. Your full name is a reasonal	ll as any program which displays or uses
Full name for the new user:	
Go Back>	<continue></continue>

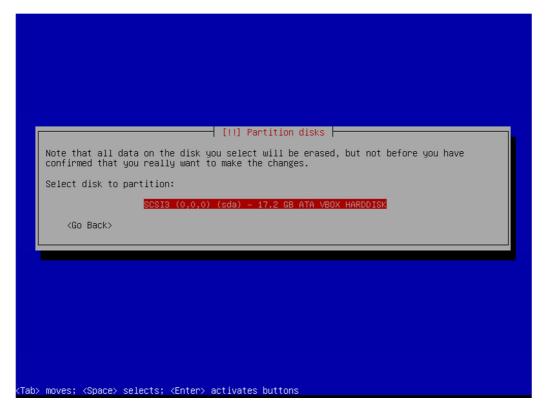
Create new user for server (Non-priv)

[!!] Set up users and passwords	
A good password will contain a mixture of letters, numbers and punctu changed at regular intervals.	ation and should be
Choose a password for the new user:	
<go back=""></go>	<continue></continue>

Set password for new user

[!!] Partition disks		
staller can guide you through partitioning a disk (using different standard s) or, if you prefer, you can do it manually. With guided partitioning you will have a chance later to review and customise the results.		
If you choose guided partitioning for an entire disk, you will next be asked which disk should be used.		
ioning method:		
<mark>Guided – use entire disk</mark> Guided – use entire disk and set up LVM Guided – use entire disk and set up encrypted LVM Manual		
o Back>		

Use guided – entire disk



Select Disk to partition

[!] Partition disks		
Selected for partitioning:		
SCSI3 (0,0,0) (sda) – ATA VBOX HARDDISK: 17.2 GB		
The disk can be partitioned using one of several different schemes. If you are unsure, choose the first one.		
Partitioning scheme:		
All files in one partition (recommended for new users) Separate /home partition Separate /home, /usr, /var, and /tmp partitions		
<go back=""></go>		
(Tab> moves; <space> selects; <enter> activates buttons</enter></space>		

Choose "All files in one partition"

[!!] Partition disks
This is an overview of your currently configured partitions and mount points. Select a partition to modify its settings (file system, mount point, etc.), a free space to create partitions, or a device to initialize its partition table.
Guided partitioning Configure software RAID Configure the Logical Volume Manager Configure encrypted volumes
SCSI3 (0,0,0) (sda) – 17.2 GB ATA VBOX HARDDISK #1 primary 16.4 GB B f ext3 / #5 logical 748.7 MB f swap swap
Undo changes to partitions Finish partitioning and write changes to disk
<go back=""></go>
<pre><f1> for help; <tab> moves; <space> selects; <enter> activates buttons</enter></space></tab></f1></pre>

Choose "Finish partitioning and write changes to disk"

	[!!] Part	ition disks	
	the changes listed below make further changes manua	will be written to the disks. lly.	Otherwise, you
The partition ta SCSI3 (0,0,0)	bles of the following devi (sda)	ces are changed:	
partition #1	rtitions are going to be f of SCSI3 (0,0,0) (sda) as of SCSI3 (0,0,0) (sda) as	ext3	
Write the change	s to disks?		
<yes></yes>			<no></no>

And finally choose "yes"

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[!] Configure the package manager		
The goal is to find a mirror of the Debian archive that is close to you on the network		
Debian archive mirror country:		
Mexico + Moldova Netherlands New Caledonia New Zealand Nicaragua Norway Poland Portugal Romania Russian Federation Singapore Slovakia Slovenia Slovenia Suvenia Suvenia Suveden Switzerland Taiwan Thailand Turkey Ukraine United Kingdom +		
<go back=""></go>		
ab> moves; <space> selects; <enter> activates buttons</enter></space>		

Choose Debian archive – in this case we are using "United Kingdom"

[1] Configure the package manager
Please select a Debian archive mirror. You should use a mirror in your country or region if you do not know which mirror has the best Internet connection to you.
Usually, ftp. <your code="" country="">.debian.org is a good choice. Debian archive mirror:</your>
ftp.uk.debian.org ukdebian.mirror.anlx.net mirror.positive-internet.com mirror.bytemark.co.uk mirror.bytemark.co.uk cdn.debian.net debian.man.ac.uk www.mirrorservice.org ftp.ticklers.org the.earth.li mirror.ox.ac.uk
<go back=""></go>
Fab> moves; <space> selects; <enter> activates buttons</enter></space>

Any archive will do closest to you; in this case we are using <u>ftp.uk.debian.org</u>



If you use a proxy server then add the details here, if you have full outbound access then just choose continue.

Retrieving file 5 of 21 (1min	→ Select and install software 5% 15s remaining)	

"apt" will now update the local repository information.



Choose not to participate in the survey.

	[!] Software selection the core of the system is installed. To ture to install one or more of the following p	
Choose software to in		
	 Graphical desktop environment Web server Print server DNS server File server File server SQL database SSH server Laptop Standard system utilities 	
≺Go Back>		<continue></continue>

Choose only SSH Server and Standard System utilities.

Choose Yes to install Grub.

	[!!] Finish the installation Installation complete Installation is complete, so it is time to boot into your new system. Make sure to remove the installation media (CD-ROM, floppies), so that you boot into the new system rather than restarting the installation. <go back=""> </go>
<tab></tab>	moves; <space> selects; <enter> activates buttons</enter></space>

Base install has now completed, choose continue to reboot into your new system.

Step 2: - Setup SSH Environment

Setting kernel variablesdone.
Configuring network interfacesdone.
Starting portmap daemon
Starting NFS common utilities: statd.
Cleaning up temporary files
Setting console screen modes.
Skipping font and keymap setup (handled by console–setup).
Setting up console font and keymapdone.
INIT: Entering runlevel: 2
Using makefile–style concurrent boot in runlevel 2.
Starting NFS common utilities: statd.
Starting portmap daemonAlready running
Starting enhanced syslogd: rsyslogd.
Starting VirtualBox AdditionsVBoxService: 3.2.10_OSE r66523 started. Verbose lev
el = 0
Starting ACPI services
Starting deferred execution scheduler: atd.
Starting periodic command scheduler: cron.
Starting OpenBSD Secure Shell server: sshd.
Starting MTA: exim4.
Debian GNU/Linux 6.0 openmeetings tty1
openmeetings login:

You should now be at the following screen, the next steps are easier done from a remote desktop using an SSH client such as putty. – But first we need to know our IP address, in most cases this was issued by your DHCP server (unless you specified manual network setup during install)

To find your IP address, first logon to your physical machine using root, then issue the following command:

ifconfig

This will show the following screen:

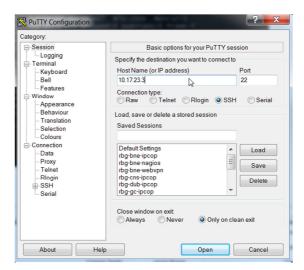
root@openmeetings:∼# ifconfig
eth0 Link encap:Ethernet HWaddr 08:00:27:22:1d:a1
inet addr:10.17.23.3 Bcast:10.17.23.255 Mask:255.255.255.0
inet6 addr: fe80::a00:27ff:fe22:1da1/64 Scope:Link
UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
RX packets:433 errors:0 dropped:0 overruns:0 frame:0
TX packets:30 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:41590 (40.6 KiB) TX bytes:2756 (2.6 KiB)
lo Link encap:Local Loopback
inet addr:127.0.0.1 Mask:255.0.0.0
inet6 addr: ::1/128 Scope:Host
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:8 errors:0 dropped:0 overruns:0 frame:0
TX packets:8 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:560 (560.0 B) TX bytes:560 (560.0 B)
root@openmeetings:~# _

You can see the IP Address in this case is 10.17.23.3 (Interface eth0)

You can now log off of the server.

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From your desktop machine open your SSH client, in this case we will be using the putty client to connect to our new Server.



Enter the details and choose open



The first log on you will receive this message; you can choose yes here and accept the key.

ச 10.17.23.3 - PuTTY	
login as:	
	-

Now log in with your root credentials.

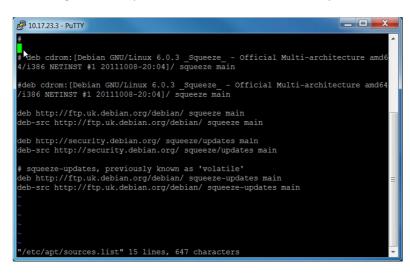
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Step 3: Install Dependent software

Firstly we need to add some repos to apt to get the required Java version, so first issue this command:

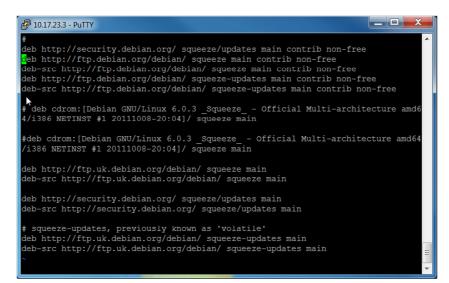
vi /etc/apt/sources.list

This will open the following file in vi: (you can use whatever file editor you are comfortable with)



Now at the top of this file add the following entries:

deb http://security.debian.org/ squeeze/updates main contrib non-free deb-src http://security.debian.org/ squeeze/updates main contrib non-free deb http://ftp.debian.org/debian/ squeeze main contrib non-free deb-src http://ftp.debian.org/debian/ squeeze main contrib non-free deb http://ftp.debian.org/debian/ squeeze-updates main contrib non-free deb-src http://ftp.debian.org/debian/ squeeze-updates main contrib non-free deb http://ftp.debian.org/debian/ squeeze-updates main contrib non-free deb http://ftp.debian.org/debian/ squeeze-updates main contrib non-free deb http://ftp.debian.org/debian/ squeeze main non-free deb http://ftp2.de.debian.org/debian squeeze main non-free



Example above – now save the file

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To update the repos we need to issue the following command:

apt-get update

Once that has completed you will be here:

Ign http://security.debian.org/ squeeze/updates/non-free Translation-en Ign http://security.debian.org/ squeeze/updates/non-free Translation-en_GB Hit http://security.debian.org squeeze/updates Release Hit http://ftp.debian.org squeeze/main Sources Hit http://ftp.debian.org squeeze/contrib Sources
Hit http://security.debian.org squeeze/updates Release Hit http://ftp.debian.org squeeze/main Sources
Hit http://ftp.debian.org squeeze/main Sources
Hit http://ftp.debian.org squeeze/contrib Sources
Hit http://ftp.debian.org squeeze/non-free Sources
Hit http://ftp.debian.org squeeze/main amd64 Packages
Hit http://ftp.debian.org squeeze/contrib amd64 Packages
Hit http://ftp.debian.org squeeze/non-free amd64 Packages
Hit http://ftp.debian.org squeeze-updates/main Sources/DiffIndex
Hit http://ftp.debian.org squeeze-updates/contrib Sources
Hit http://ftp.debian.org squeeze-updates/non-free Sources
Hit http://security.debian.org squeeze/updates/main Sources
Hit http://ftp.debian.org squeeze-updates/main amd64 Packages/DiffIndex
Hit http://ftp.debian.org squeeze-updates/contrib amd64 Packages
Hit http://ftp.debian.org squeeze-updates/non-free amd64 Packages
Hit http://security.debian.org squeeze/updates/contrib Sources
Hit http://security.debian.org squeeze/updates/non-free Sources
Hit http://security.debian.org squeeze/updates/main amd64 Packages
Hit http://security.debian.org squeeze/updates/contrib amd64 Packages
Hit http://security.debian.org squeeze/updates/non-free amd64 Packages
Hit http://ftp.debian.org squeeze-updates/main amd64 Packages
Reading package lists Done
root@openmeetings:~#

Let's install the needed software by issuing the following commands: (Please accept the **sun-java6jre** license agreement during install)

apt-get install sun-java6-jdk apt-get install openoffice.org-writer openoffice.org-calc openoffice.org-impress openoffice.orgdraw openoffice.org-math apt-get install imagemagick apt-get install gs-gpl apt-get install libgif-dev xpdf libfreetype6 libfreetype6-dev libjpeg62 libjpeg8 libjpeg8-dev apt-get install g++ apt-get install libjpeg-dev apt-get install libdirectfb-dev apt-get install libdirectfb-dev apt-get install libart-2.0-2 libt1-5 zip unzip bzip2 subversion git-core checkinstall yasm texi2html libfaac-dev libfaad-dev libmp3lame-dev libsdl1.2-dev libx11-dev libxfixes-dev libxvidcore-dev zlib1g-dev libogg-dev sox libvorbis0a libvorbis-dev libgsm1 libgsm1-dev libfaad2 flvtool2 lame

Step 4: - Create mysql DB for OM

Now we need to install MYSQL, issue this command (In this case username and password are openmeetings : ompassword)

apt-get install mysql-server

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🔗 10.17.23.3 - PuTTY 📃 👘 📼 🔤 🗮 🏹	
	-

Enter the password as before "ompassword" and choose ok.

Now let's crate the needed DB's for OM 2.x

Issue these commands:

mysql -u root -p

🛃 10.17.23.3 - PuTTY	
root@openmeetings:~# mysql -u root -p Enter password:	×
Enter password:	
	=
	T

Enter password "ompassword"

Now issue these: (Assuming username openmeeting and password = password)

CREATE DATABASE openmeetings DEFAULT CHARACTER SET 'utf8'; GRANT ALL PRIVILEGES ON openmeetings. * TO 'openmeetings'@'localhost' IDENTIFIED BY 'password' WITH GRANT OPTION; quit

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🛃 10.17.23.3 - PuTTY
root@openmeetings:~# mysql -u root -p
Welcome to the MySQL monitor. Commands end with ; or g .
Your MySQL connection id is 44 Server version: 5.1.61-0+squeeze1 (Debian)
Copyright (c) 2000, 2011, Oracle and/or its affiliates. All rights reserved.
Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> CREATE DATABASE openmeetings DEFAULT CHARACTER SET 'utf8'; Query OK, 1 row affected (0.00 sec)
mysql> GRANT ALL PRIVILEGES ON openmeetings. * TO 'openmeetings'@'localhost' IDE NTIFIED BY 'password' WITH GRANT OPTION; Query OK, 0 rows affected (0.00 sec)
mysql> quit Bye
root@openmeetings:~#

Successful DB creation shown above.

Step 5: Compile Install SWFTools

Now let's create a temporary working area by issuing these commands:

mkdir /usr/adm cd /usr/adm

Download, compile and install swftools by issuing these commands:

wget http://www.swftools.org/swftools-2011-12-15-1229.tar.gz tar -zvxf swftools-2011-12-15-1229.tar.gz cd swftools-2011-12-15-1229 ./configure --prefix=/usr/local make make install

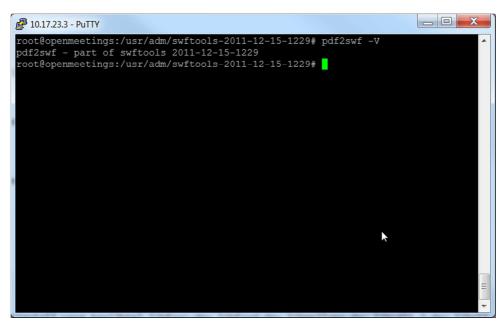
You can now test it by issuing the following:

pdf2swf-V

Which should give you the following output:

pdf2swf - part of swftools 2011-12-15-1229

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Successful swftools build.

Step 6: Compile and Install ffmpeg

Let's go back to our temporary working area

cd /usr/adm

Download, compile and install ffmpeg by issuing these commands:

wget http://ffmpeg.org/releases/ffmpeg-0.9.1.tar.gz tar zxf ffmpeg-0.9.1.tar.gz cd ffmpeg-0.9.1 ./configure --enable-libmp3lame --enable-libxvid --enable-libvorbis --enable-libgsm --enablelibfaac --enable-gpl --enable-nonfree make checkinstall

N.B - You will be asked a series of question towards the end of the install, press return for each to continue.

Once that has completed you can now test it by issuing the following:

ffmpeg -version

Which should give you the following output:

ffmpeg 0.9.1

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Step 7: Install JOD Converter

Let's go back to our temporary working area

cd /usr/adm

Download, extract JOD by issuing these commands: (We will move the JOD location after the installation of OM 2.x)

wget http://jodconverter.googlecode.com/files/jodconverter-core-3.0-beta-4-dist.zip unzip jodconverter-core-3.0-beta-4-dist.zip

Step 8: Install ANT 1.8.3 for compiling latest OM 2.x

Let's go back to our temporary working area

cd /usr/adm

Download, extract ANT by issuing these commands:

wget http://mirror.catn.com/pub/apache//ant/binaries/apache-ant-1.8.3-bin.tar.gz tar –zxvf apache-ant-1.8.3-bin.tar.gz

Once that has completed you can test it by issuing the following commands:

cd /usr/adm/apache-ant-1.8.3/bin ./ant -version

This should output the following:

Apache Ant(TM) version 1.8.3 compiled on February 26 2012

Step 9: Download and compile latest OM 2.x

Again back to our working area:

cd /usr/adm

Then check out the latest source code using the following:

svn checkout https://svn.apache.org/repos/asf/incubator/openmeetings/trunk/singlewebapp/

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Once that has completed we can then build the source by issuing the following:

cd /usr/adm/singlewebapp /usr/adm/apache-ant-1.8.3/bin/ant

This will take a little while depending on your system, once it has finished you should be left the following message:

BUILD SUCCESSFUL

Step 10: Install compiled OM 2.x

Now we need to move the compiled source into the correct location, in this system we are using /usr/lib/red5, so issue the following commands to move the root folder over:

cd /usr/adm/singlewebapp/dist mv red5/ /usr/lib/ cd /usr/lib/red5

Let's move the JOD into place now

cp -R /usr/adm/jodconverter-core-3.0-beta-4 /usr/lib/red5/webapps/openmeetings

And set some permissions and ownerships

chown -R nobody /usr/lib/red5 chmod +x /usr/lib/red5/red5.sh chmod +x /usr/lib/red5/red5-debug.sh

Set the start-up script for OM 2.x by issuing the following:

vi /etc/init.d/red5

and adding the following:

#!/bin/bash
For RedHat and cousins:
chkconfig: 2345 85 85
description: Red5 flash streaming server
processname: red5
Created By: Sohail Riaz (sohaileo@gmail.com)
Modified by Alvaro Bustos
PROG=red5
RED5_HOME=/usr/lib/red5
DAEMON=\$RED5_HOME/\$PROG.sh

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```
PIDFILE=/var/run/$PROG.pid
# Source function library
#./etc/rc.d/init.d/functions
[ -r /etc/sysconfig/red5 ] && . /etc/sysconfig/red5
RETVAL=0
case "$1" in
start)
# echo -n $"Starting $PROG: "
   /usr/lib/openoffice/program/soffice "-
accept=socket,host=127.0.0.1,port=8100,tcpNoDelay=1;urp;" -headless -nodefault -
nofirststartwizard -nolockcheck -nologo -norestore & sleep 5
cd $RED5_HOME
    start-stop-daemon --start -c nobody --pidfile $PIDFILE
$DAEMON >/dev/null 2>/dev/null &
RETVAL=$?
if [ $RETVAL -eq 0 ]; then
echo $! > $PIDFILE
# touch /var/lock/subsys/$PROG
fi
# [ $RETVAL -eq 0 ] && success $"$PROG startup" || failure $"$PROG startup"
echo
;;
stop)
    pkill soffice.bin
    start-stop-daemon --stop --quiet --pidfile $PIDFILE \
        --name java
    rm -f $PIDFILE
echo
[$RETVAL -eq 0] && rm -f /var/lock/subsys/$PROG
;;
restart)
$0 stop
$0 start
;;
status)
status $PROG -p $PIDFILE
RETVAL=$?
;;
*)
echo $"Usage: $0 {start|stop|restart|status}"
RETVAL=1
esac
exit $RETVAL
```

Save the file and then set the permissions like below:

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chmod +x /etc/init.d/red5 update-rc.d red5 defaults

Now we need to move the persistence files so we can connect to mysql, so issue the following:

Make backup copy mv /usr/lib/red5/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml /usr/lib/red5/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml-ori

Rename mysql template to persistence.xml

mv /usr/lib/red5/webapps/openmeetings/WEB-INF/classes/META-INF/mysql_persistence.xml /usr/lib/red5/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

Edit the persistence file and add out mysql details, in this case we used "**openmeetings**" and "**password**" – so issue the following:

vi /usr/lib/red5/webapps/openmeetings/WEB-INF/classes/META-INF/persistence.xml

Then change the following

, Username=openmeetings

, Password=password"/>

At this stage we are ready to start up OM 2.x for the first time.

/etc/init.d/mysql start
/etc/init.d/red5 start

Now open the browser and go to the following link. **N.B remember to change the IP address to** your OM2.x server, the one below 10.17.23.3 is just for this example.

http://10.17.23.3:5080/openmeetings/install

If all went well you should now see this page:

Firefox * 6/ http://10.17.23meetings/install +			1 <mark>- X</mark>	
	- Google	P 🟦 🛛	D • #	Ð
OpenMeetings - Installation				1
Continue with STEP 1				ł
1. Recommendation for production environment				
By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MySQL, Postgres or for example IBM DB2 or Oracle				1
2. Enabling Image Upload and import to whiteboard				1
 Instal ImageMagick on the server, you can get more information on <u>http://www.imagemagick.org</u> regarding installation. The instructions for installation can be found there <u>http://www.imagemagick.org</u> script binary-release managers (upt-get it) 	<u>php</u> , however on most linux systems you can get it via you	favorite pa	ckage	
3. Enabling import of PDFs into whiteboard				
• Instal Ghuseffwije ou die verve, ywa mig et more information wo lings/junger.co.unic.cols/~adors/ regar ding installation. The instancions for installation can be found there, however on more linux systems ywa oan get i vi • Instal SWFTools on the server, ywa can get more information on <u>lings/junger.co.unic.cols/~adors/</u> regarding installation. Some of the Linux distributions already have i in there package manager see <u>lings/junger.co.unic.cols/~adors/</u> regarding installation. Some of the Linux distributions already have i in there package manager see <u>lings/junger.co.unic.cols/~adors/</u> regarding installation. Some of the Linux distributions already have i in there package manager see <u>lings/junger.co.unic.cols/~adors/</u> regarding installation. Some of the Linux distributions already have i in there package manager see <u>lings/junger.co.unic.cols/~adors/</u> regarding installation. Some of the Linux distributions already have i in there package manager see <u>lings/junger.co.unic.co.</u>		s is 0.9 as p	rior vers	ion
4. Enabling import of .doc, .docx, .ppt, .pptx, all Office Documents into whitebaord				
 OpenOffice-Service started and listening on port \$100, see <u>OpenOfficeConverter</u> for details 				
5. Enabling Recording and import of .avi, .ftv, .mov and .mp4 into whiteboard				1
 Instal FFMpeg. You should get FFMPEG in an up to date copy! For Windows you can download a Baild for example from https://fmpeg.arozen.org/bailds/Linux.or OSx Users should be able to use one of the various I o Instal SoX intry/isox source/see and / You should install SoX in a up to date copy! SoX 12.xx will NOT work! 	astallation Instructions on the Web. You need to enable libm	p3lame!		
Continue with STEP 1				
If you have further questions or need support in installation or hosting:				
Commercial-Support:				1
By phone				
++49 721 467 27327 By email				1
service@openmeetings.de				ł
Community-Support:				į
User-Forums Developer-Forums				ł
2011/00/212 VIUID				

Choose the "Continue with STEP 1" link

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OpenMeetings - Installation		
Userdata		<i>G</i> ₂
Username		
Userpass		
EMail		
User Time Zone	New Zealand (Etc/GMT+12 (New Zealand))	•
Organisation(Domains)		
Name		
Configuration		
Allow self-registering (allow_frontend_register)	Yes	
Send Email to new registered Users	Yes 💌	
(sendEmailAtRegister)		
New Users need to verify their EMail	Yes 💌	
(sendEmailWithVerficationCode)		
Default Rooms of all types will be created	Yes 💌	
Mail-Referer (system_email_addr)	noreply@localhost	
SMTP-Server (smtp_server)	localhost	
SMTP-Server Port(default Smtp-Server Port is 25)	25	
(smtp_port)		
SMTP-Username (email_userpass)		
SMTP-Userpass (email_userpass)		
Enable TLS in Mail Server Auth	No	
Set inviter's email address as ReplyTo in email invitations	Yes	
(inviter.email.as.replyto)		
Default Language	english	

The only section we need to fill out at this stage is the following:

Username: omadmin Userpass: ompassword Email: something@something.com TimeZone: United Kingdom Domain Name: somedomain

Now click on INSTALL at the bottom of the page, this will then create all the needed tables etc.. - it can take a little while but be patient.



If your Red5-Server runs on a different Port or on a different domain alter the config values of the client

Mailing list

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

There are some companies that also offer commercial support for Apache OpenMeetings: http://incubator.apache.org/openmeetings/commercial-support.html

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Once that has completed you can now enter the application by clicking on the "Enter the Application" link

You should see the following logon screen:

Login	
Username or mai	
Password	
Domain	local DB [internal]
	Remember login
Not a member?	Sign in
Forgotten your pass	word? visit Apache OpenMeetings [Incubating]

Enter these details to sign in.

Username: omadmin Userpass: ompassword

Step 11: Add relevant paths to the configuration

Once logged in go to Administration > Configuration

Apach	e Ope	enMee	etings [I	ncubating]	
Home 👻	Record	ings 👻	Rooms 👻	Administration 👻	
6			rstname lastn mezone <u>Etc/GM</u>	Manage users and rights	н
		Unread	messages <u>0</u> our profile	Connections Manage connections and kick users	
Upload ne	w image	Euic y	our prome	Usergroups Manage usergroups	
				Conference rooms Manage conference rooms	
Project web	and support t website (http://incubator.apache.org/op			Manage system settings	¢
<u>User mailing</u>	i list (http:/	//incubato	or.apache.org/oj	Language editor Manage labels and wording	
🍓 My roo	oms			LDAP Manage LDAP and ADS configurations	
My conference	e room (fo	r 1-16 use	ers)	Backup Export/Import System Backups) F 2
Muunhinne	÷	120	-)	Enter	Clic
My webinar ro	Som (for 1-	-120 Users	5)		Roo
					Corr

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You will see on the left hand pane a list of keys and values, the ones we are interested in are

SWFTools Path	/usr/local/bin
ImageMagick Path	/usr/bin
FFMPEG Path	/usr/local/bin
SoX Path	/usr/bin
JOD Path	/usr/lib/red5/webapps/openmeetings/jodconverter-core-3.0-beta-4/lib

Click on the left hand pane option and then enter the value as above, click on the save button to apply the changes, once you have done each key you should see the following:

A	pache OpenM	leetings [Incubating]	
Ho	me 👻 Recordings	Rooms Administration	+
- 5	0 of 67	50 2 2	📄 💠 🛸 😹
0	Кеу	Value	
	crypt_ClassName	org.openmeetings.utils.crypt.MD5Imple	Configuration
	screen_viewer	4	
	allow_frontend_register	1	Кеу
	default_group_id	1	Value
	default_domain_id	1	
	smtp_server	localhost	Last update
	smtp_port	25	Ondered by:
	system_email_addr	noreply@localhost	Updated by
	email_username		Comment
0	email_userpass		
L	mail.smtp.starttls.enabl	0	
2	application.name	OpenMeetings	
3	default_lang_id	1	
1	swftools_zoom	72	
5	swftools_jpegquality	85	
5	swftools_path	/usr/local/bin	
7	imagemagick_path	/usr/bin	
В	sox_path	/usr/bin	
9	ffmpeg_path		
0	office.path		
L	jod.path	/usr/lib/red5/webapps/openmeetings/j	
2	rss_feed1	null	
3	rss_feed2	null	
4	sendEmailAtRegister	1	
5	sendEmailWithVerficatio		
6	default_export_font	TimesNewRoman	
7	default.rpc.userid	1	
8	red5sip.enable	no	
9	red5sip.room_prefix	400	
)	red5sip.exten_context	rooms	
1	sip.enable	no	
2 3	sip.realm		
	sip.port		
4 5	sip.proxyname		
	sip.tunnel sip.codebase		
6 7	sip.codebase sip.forcetunnel	true	
/ В	sip.openxg.enable	no	
8 9	openxg.wrapper.url		
9	openxg.wrapper.uri openxg.client.id		
1	openxg.client.secret		
1 2	openxg.client.domain		
•	openxy.clienc.domain		

Apache OpenMeetings [Incubating]

JOD will find open office in this case so we do not need to set the path.

Step 12: Securing OpenMeetings using encryption (Optional)

12.1 - Generating CSR:

We can do this in a few ways, the first way I will show here is simply by generating a CSR and inserting these into OpenMeetings.

Create a new keystore and key, use the same password for both: (Taken from OM Website http://incubator.apache.org/openmeetings/RTMPSAndHTTPS.html)

keytool -keysize 2048 -genkey -alias red5 -keyalg RSA -keystore red5/conf/keystore Enter keystore password: Re-enter new password: What is your first and last name? [Unknown]: <your hostname, e.g demo.openmeetings.de> What is the name of your organizational unit? [Unknown]: Dev What is the name of your organization? [Unknown]: OpenMeetings What is the name of your City or Locality? [Unknown]: Henderson What is the name of your State or Province? [Unknown]: Nevada What is the two-letter country code for this unit? [Unknown]: US Is CN=demo.openmeetings.de, OU=Dev, O=OpenMeetings, L=Henderson, ST=Nevada, C=US correct? [no]: yes Enter key password for <red5>

Generate a CSR:

keytool -certreq -keyalg RSA -alias red5 -file red5.csr -keystore red5/conf/keystore

Submit CSR to your CA of choice and receive a signed certificate Import your chosen CA's root certificate into the keystore (may need to download it from their site make sure to get the root CA and not the intermediate one)

keytool -import -alias root -keystore red5/conf/keystore -trustcacerts -file root.crt

(note: you may receive a warning that the certificate already exists in the system wide keystore - import anyway)

Import the intermediate certificate(s) you normally receive with the certificate:

keytool -import -alias intermed -keystore red5/conf/ keystore -trustcacerts -file intermediate.crt

Import the certificate you received:

keytool -import -alias red5 -keystore red5/conf/keystore -trustcacerts -file demo.openmeetings.de.crt

12.2 – Using Existing certs such as wild card certificates instead of generating a new CSR.

First let's go back to our work area:

cd /usr/adm/ mkdir certs cd certs/

Using WinSCP or equivalent copy your wild card key and cert files: yourdomain.key.pem and yourdomain.cert.pem - (These should be in PEM format)

Now issue the following to convert the files to DER format

openssl pkcs8 -topk8 -nocrypt -in apache.key.pem -inform PEM -out key.der -outform DER openssl x509 -in apache.cert.pem -inform PEM -out cert.der -outform DER

Now we need a couple of files to help us import the DER files into the keystore, so issue the following:

wget http://www.agentbob.info/agentbob/80/version/default/part/AttachmentData/data/ImportKey.java wget http://www.agentbob.info/agentbob/81/version/default/part/AttachmentData/data/ImportKey.class

Then use these commands to import:

java ImportKey key.der cert.der

Finally move the keystore to the correct location

mv /root/keystore.ImportKey /usr/lib/red5/conf/keystore

N.B = Alias:importkey Password:importkey (When using the java import key files, you can change the password afterwards)

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Now that we have either a new Cert of the wild card cert inside our Keystore we need to make some changes to OM 2.x to use these certificates and thus encrypt communications using HTTPS and RTMPS.

To use RTMPS do the following: First make some changes to the red5-core.xml file by issuing the following:

```
cd /usr/lib/red5/conf
vi red5-core.xml
```

now uncomment <!-- RTMPS --> section by removing the <!-- and the --> leaving this:

<bean id="rtmpsMinaloHandler"

<property name="handler" ref="rtmpHandler" />
<property name="codecFactory" ref="rtmpCodecFactory" />
<property name="rtmpConnManager" ref="rtmpMinaConnManager" />
<property name="keyStorePassword" value="\${rtmps.keystorepass}" />
<property name="keystoreFile" value="conf/keystore" />
</bean>

<bean id="rtmpsTransport" class="org.red5.server.net.rtmp.RTMPMinaTransport" initmethod="start" destroy-method="stop">

Save this file and then do the following:

cd /usr/lib/red5/conf vi red5.properties

```
set rtmps.port=5443
rtmps.keystorepass=password (password = password you set on your new keystore)
```

Now edit config.xml by doing the following:

cd /usr/lib/red5/webapps/openmeetings/ vi config.xml

Set these following values:

<rtmpsslport>**5443**</rtmpsslport> <useSSL>**yes**</useSSL> <proxyType>**best**</proxyType>

To use HTTPS do the following:

First make a backup of the original jee-container file by doing the following:

cd /usr/lib/red5/conf mv jee-container.xml jee-container.xml.orig

Then rename the SSL jee template

mv jee-container-ssl.xml jee-container.xml

Now edit the config.xml

cd /usr/lib/red5/webapps/openmeetings/ vi config.xml

set

<protocol>https</protocol> <red5httpport>443</red5httpport>

Lastly edit red5.properties by doing the following:

cd /usr/lib/red5/conf vi red5.properties

set

https.port=443 http.port=443

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Now restart OM using the following:

/etc/init.d/red5 restart

We can now connect using the following link:

https://yourdomain/openmeetings

Step 13: Installing Reverse Proxy using Apache Web Server (Optional)

Another way to secure the OpenMeetings service is to use Apache as a reverse proxy, to do this we need to do the following:

First install Apache2 and enabling relevant modules by running the following commands:

apt-get install apache2 a2enmod proxy a2enmod proxy_http a2enmod ssl a2enmod headers a2enmod rewrite a2enmod cache /etc/init.d/apache2 restart

We can now redirect port 80 (less secure) or port 443 (secure) to port 5080, to do this we need to create a virtual host, to do this do the following:

cd /etc/apache2/sites-enabled/

Now for SSL redirect (using a Cert on Apache instead of keystore) do the following

vi om.yourdomain.com-ssl

and add the following

<IfModule mod_ssl.c> #NameVirtualHost *:443 ProxyRequests Off <VirtualHost *:80> ServerAdmin hostmaster@domain.com ServerName om.yourdomain.com

ProxyPreserveHost On RewriteEngine on

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Redirect http traffic to https
RewriteRule ^/(.*)\$ https://om.yourdomain.com/\$1 [L,R]
</VirtualHost>

<VirtualHost *:443> ServerAdmin hostmaster@domain.com ServerName om.yourdomain.com

SSLEngine on SSLProxyEngine On RequestHeader set Front-End-Https "On" ProxyPreserveHost On RewriteEngine on CacheDisable *

Reverse proxy all requests RewriteRule ^/(.*) http://om.yourdomain.com:5080/\$1 [P]

SSLCertificateFile /etc/ssl/certs/yourdomain.pem SSLCertificateKeyFile /etc/ssl/private/yourdomain.key

SetEnvIf User-Agent ".*MSIE.*" \
nokeepalive ssl-unclean-shutdown \
downgrade-1.0 force-response-1.0
</VirtualHost>

You will need SSL certs for this to work, so copy your Key and Cert to the following **locations (use WinSCP or equiv)**

/etc/ssl/certs/ = yourdomain.pem
/etc/ssl/private/ = yourdomain.key

Now restart apache2

/etc/init.d/apache2 restart

You can now go to <u>https://om.yourdomain.com/openmeetings</u> which will encrypt ONLY the HTTPS components and re-write the address so it doesn't show the 5080 port; it still uses RTMP for flash.

And finally for HTTP redirect and re-write do the following: (assuming no SSL don't use this in conjunction with the other config – both can be incorporated but this is just for example)

vi om.yourdomain.com-http

Add the following:

ProxyRequests Off <VirtualHost *:80> ServerAdmin hostmaster@domain.com ServerName om.yourdomain.com

ProxyPreserveHost On RewriteEngine on CacheDisable *

Reverse proxy all requests
RewriteRule ^/(.*) http://om.yourdomain.com:5080/\$1 [P]
</VirtualHost>

Then restart Apache with

/etc/init.d/apache2 restart

Now you can access OM with

http://om.yourdomain.com/