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.

N.B – When copying and pasting commands please check that symbols and character returns are correctly copied across.

Installing Debian (Minimal Headless System)

Step 1: - Base System



Choose 64 Bit install

		ct a language allation process. The selected language will led system.
	C Albanian Arabic Asturian Basque Belarusian Bosnian Bulgarian Catalan Chinese (Simplified) Chinese (Traditional) Croatian Czech Danish Dutch Esperanto Estonian Finnish French Galician Gereak	 No localization * Shqip Φ.Φ.Φ Asturianu Euskara Benapyckasi Bosanski Bbhrapcku Català 中文(简体) 中文(简体) 中文(衛儒) Kustica Čeština Dansk Nederlands Esperanto Eesti Suomi Français Galego Deutsch Eλληνικά *
<go back=""></go>		
Tab> moves; <space> se</space>	lects; <enter> activates</enter>	buttons

Stephen Cottham

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

Choose "United Kingdom"

	<pre>[!] Select a keyboard layout Keymap to use: American English Belarusian Belgian Brazilian (ABNT2 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 *</pre>	
(Tah) moves: (Spac		

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 net know what your hostname should be, consult your network administrate up your own home network, you can make something up here. Hostname:	
openmeetings	<continue></continue>

Set the hostname, in this case its "openmeetings"

is often something that ends i	[!] Configure the network f your Internet address to the right of your host name. It in .com, .net, .edu, or .org. If you are setting up a home ng up, but make sure you use the same domain name on all
<mark>yourdomain</mark> . <mark>internal</mark>	<continue></continue>
b> moves; ≺Space> selects; <ente< td=""><td></td></ente<>	

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

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[!!] Set up users and passwords	
You need to set a password for 'root', the system administrative ad unqualified user with root access can have disastrous results, so y choose a root password that is not easy to guess. It should not be dictionaries, or a word that could be easily associated with you.	you should take care to
A good password will contain a mixture of letters, numbers and punc changed at regular intervals.	ctuation and should be
The root user should not have an empty password. If you leave this account will be disabled and the system's initial user account will become root using the "sudo" command.	
Note that you will not be able to see the password as you type it.	
Root password:	
<go back=""></go>	<continue></continue>

Set the root password.

A user account will be created for you to use instea	
non-administrative activities.	
Please enter the real name of this user. This inform default origin for emails sent by this user as well the user's real name. Your full name is a reasonable	as any program which displays or uses
Full name for the new user:	
<go back=""></go>	<continue></continue>

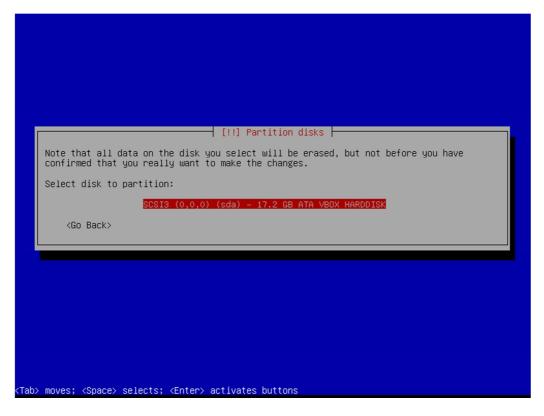
Create new user for server (Non-priv)

		<continue></continue>
xb> moves; ≺Space> selects; ≺En	ter> activates buttons	

Set password for new user

[!!] Partition disks
The installer can guide you through partitioning a disk (using different standard schemes) or, if you prefer, you can do it manually. With guided partitioning you will still 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.
Partitioning 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
<go back=""></go>

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 to modify :	of your currently configured partitions and mount points. Select a its settings (file system, mount point, etc.), a free space to create ice to initialize its partition table.
	ונכ וט ווווומווצב ווא אמרוווטה ומאום.
((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>	

Choose "Finish partitioning and write changes to disk"

	[!!] Pa	rtition disks	
	the changes listed belo make further changes mar	w will be written to the d wally.	isks. Otherwise, you
The partition ta SCSI3 (0,0,0)	bles of the following da (sda)	vices are changed:	
partition #1	rtitions are going to be of SCSI3 (0,0,0) (sda) a of SCSI3 (0,0,0) (sda) a	is ext3	
Write the change	s to disks?		
<yes></yes>			<no></no>

And finally choose "yes"

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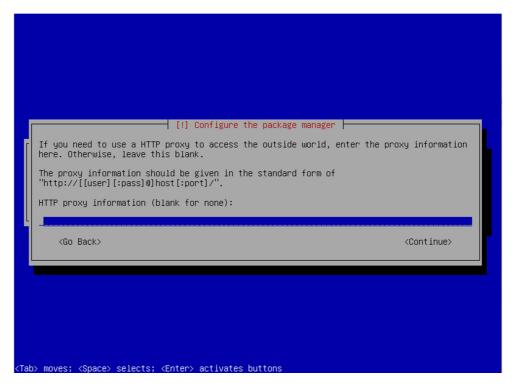
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[!] Configure the package manager				
The goal is to find a mirror of the Debian archive that is close to you on the network be aware that nearby countries, or even your own, may not be the best choice.				
Debian archive mirror country:				
Mexico * Moldova Netherlands New Caledonia New Zealand Nicaragua Norway Poland Portugal Romania Russian Federation Singapore Slovakia Slovenia South Africa Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine				
<go back=""></go>				
b> moves; <space> selects; <enter> activates buttons</enter></space>				

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

	[!] Configure the package manager
-	ich mirror has the best Internet connection to you. untry code>.debian.org is a good choice.
Debian archive mirror:	
	fto.uk.debian.org ukdebian.mirror.anlx.net mirror.positive-internet.com mirrors.melbourne.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>	

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



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

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

"apt" will now update the local repository information.



Choose not to participate in the survey.

	[!] Software selection y the core of the system is installed. To tune t ose to install one or more of the following pred	
Choose software to	install:	
	 [] Graphical desktop environment [] Web server [] Print server [] DNS server [] File server [] Mail server [] SQL database [*] SSH server [] Laptop [*] Standard system utilities 	
<go back=""></go>		<continue></continue>

Choose only SSH Server and Standard System utilities.

[!] Install the GRUB boot loader on a hard disk			
It seems that this new installation is the only operating system on this computer it should be safe to install the GRUB boot loader to the master boot record of yo hard drive.			
Warning: If the installer failed to detect another operating system that is present on your computer, modifying the master boot record will make that operating system temporarily unbootable, though GRUB can be manually configured later to boot it.			
L Install the GRUB boot loader to the master boot record?			
<go back=""> (Yes)</go>	<no></no>		
ab> moves; <space> selects; <enter> activates buttons</enter></space>			

Choose Yes to install Grub.

		n media (CD-RO	Installa it is time to M, floppies),		Hew system. Make s into the new sys	
l	<go back=""></go>				K	<u>Continue></u>
<tab></tab>	moves; <space></space>	selects; <ent< th=""><th>er> activates</th><th>buttons</th><th></th><th></th></ent<>	er> activates	buttons		

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:

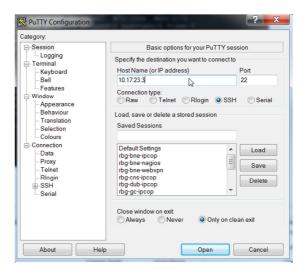
	meetings:~# ifconfig
eth0	Link encap:Ethernet HWaddr 08:00:27:22:1d:a1
	inet addr:10.17.23.3 Bcast:10.17.23.255 Mask:255.255.255.0
	inet6 addr: fe80::a00:27ff:fe22:1da1/64 Scope:Link
	UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
	RX packets:433 errors:0 dropped:0 overruns:0 frame:0
	TX packets:30 errors:0 dropped:0 overruns:0 carrier:0
	collisions:0 txgueuelen:1000
	RX bytes:41590 (40.6 KiB) TX bytes:2756 (2.6 KiB)
10	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@open	meetings:~# _

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.



Now log in with your root credentials.

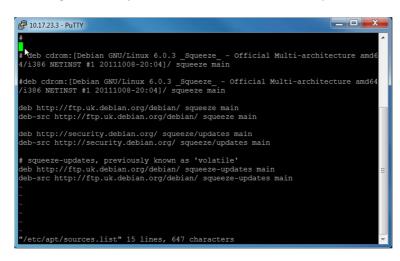
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Step 3: Install Dependent software

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-updates 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://ftp2.de.debian.org/debian squeeze main non-free deb http://www.debian-multimedia.org squeeze main

🔗 10.17.23.3 - PuTTY	
<pre># deb 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-updates main contrib non-free deb src http://ftp.debian.org/debian/ squeeze-updates main contrib non-free deb-src http://ftp.debian.org/debian/ squeeze-updates main contrib non-free</pre>	
<pre># deb cdrom:[Debian GNU/Linux 6.0.3 _Squeeze Official Multi-architecture amd6 4/i386 NETINST #1 20111008-20:04]/ squeeze main</pre>	
#deb cdrom:[Debian GNU/Linux 6.0.3 _Squeeze Official Multi-architecture amd64 /i386 NETINST #1 20111008-20:04]/ squeeze main	
deb http://ftp.uk.debian.org/debian/ squeeze main deb-src http://ftp.uk.debian.org/debian/ squeeze main	
deb http://security.debian.org/ squeeze/updates main deb-src http://security.debian.org/ squeeze/updates main	
<pre># squeeze-updates, previously known as 'volatile' deb http://ftp.uk.debian.org/debian/ squeeze-updates main deb-src http://ftp.uk.debian.org/debian/ squeeze-updates main ~</pre>	

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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:

🛃 10.17.23.3 - PuTTY
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/non-free 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/non-free Sources Hit http://ftp.debian.org squeeze-updates/non-free Sources Hit http://ftp.debian.org squeeze-updates/non-free Sources Hit http://ftp.debian.org squeeze-updates/nain Sources Hit http://ftp.debian.org squeeze-updates/contrib amd64 Packages Hit http://ftp.debian.org squeeze-updates/non-free Sources 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/nain 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.org-draw openoffice.org-math imagemagick gs-gpl -y

apt-get install libgif-dev xpdf libfreetype6 libfreetype6-dev libjpeg62 libjpeg8 \ libjpeg8-dev g++ libjpeg-dev libdirectfb-dev 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 -y

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	
Package configuration	
	=

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

Putry 10.17.23.3 - Putry	
root@openmeetings:~# mysql -u root -p	·
Enter password.	
	-
	÷

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 Enter password: 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 (2012-04-08-0857)

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

mkdir -p /usr/adm cd /usr/adm

Download, compile and install swftools by issuing these commands:

wget http://www.swftools.org/swftools-2012-04-08-0857.tar.gz tar -zxvf swftools-2012-04-08-0857.tar.gz cd swftools-2012-04-08-0857 ./configure make make install

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

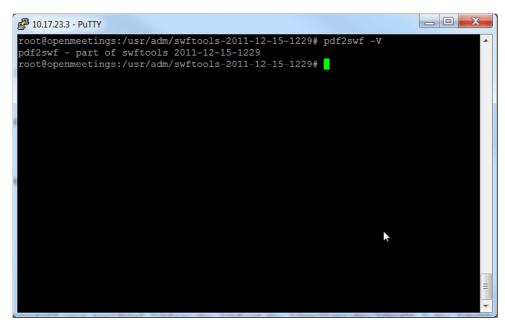
pdf2swf --version

Which should give you the following output:

pdf2swf - part of swftools 2012-04-08-0857

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Successful swftools build.

Step 6: Compile and Install ffmpeg (0.11.1)

Let's go back to our temporary working area

Let's make our temporary working area

cd /usr/adm

Download, compile and install ffmpeg by issuing these commands:

```
wget http://ffmpeg.org/releases/ffmpeg-0.11.1.tar.gz
tar -zxvf ffmpeg-0.11.1.tar.gz
cd ffmpeg-0.11.1
./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 0.11.1

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 1.8.4 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-1.8.4-bin.tar.gz tar -zxvf apache-ant-1.8.4-bin.tar.gz

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

cd /usr/adm/apache-ant-1.8.4/bin ./ant -version

This should output the following:

Apache Ant(TM) version 1.8.4 compiled on May 22 2012

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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 http://svn.apache.org/repos/asf/incubator/openmeetings/branches/2.0/

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

cd /usr/adm/2.0 /usr/adm/apache-ant-1.8.4/bin/ant clean.all /usr/adm/apache-ant-1.8.4/bin/ant -Ddb=mysql

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

BUILD SUCCESSFUL

Step 9a: Install pre-built OM 2.x

Download the latest build from the following link:

https://builds.apache.org/job/openmeetings

The file will be something like the following "apache-openmeetings-incubating-2.xxxxx.tar.gz: (Where xxx is the date and build version)

So using wget we first go back to our build area like so:

cd /usr/adm mkdir -p singlewebapp/dist cd singlewebapp/dist

Then grab the file and extract it:

wget https://builds.apache.org/job/openmeetings/lastSuccessfulBuild/\ artifact/singlewebapp/dist/apache-openmeetings-incubating-2.xxxxx.tar.gz tar -zxvf apache-openmeetings-incubating-2.xxxxx.tar.gz

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Now download the mysql connector from here:

http://www.mysql.com/downloads/connector/j/

cd /usr/adm/singlewebapp/dist/red5/webapps/openmeetings/WEB_INF/lib wget http://www.mysql.com/get/Downloads/Connector-J/\ mysql-connector-java-5.1.20.zip/from/http://mirrors.ukfast.co.uk/sites/\ ftp.mysql.com/ unzip mysql-connector-java-5.1.20.zip cd mysql-connector-java-5.1.20 mv mysql-connector-java-5.1.20-bin.jar \ /usr/adm/singlewebapp/dist/red5/webapps/openmeetings/WEB_INF/lib

Step 10: Install compiled\Pre-Built 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/2.0/dist mv red5/ /usr/lib/

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

```
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```

```
RED5_HOME=/usr/lib/red5
DAEMON=$RED5_HOME/$PROG.sh
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)
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)
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: chmod +x /etc/init.d/red5 update-rc.d red5 defaults

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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/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 *		
◆ ♥ 10.17.23.3:5080/openmeetings/install	☆ ≠ ଫ] 🛃 - Google	۴ 🗈 ۴
OpenMeetings - Installation		
Continue with STEP 1		
1. Recommendation for production environment		
By default OpenMeetings uses the integrated Apache Derby database. For production environment you should consider using MvSQL, Postgres or for example	IBM DB2 or Oracle	
2. Enabling Image Upload and import to whiteboard		
 Install ImageMagick on the server, you can get more information on http://www.imagemagick.org reparding installation. The instructions for installation can be for managers (apt-get it) 	und there http://www.imagemagick.org/script/binary-releases.php, however on most linux systems ye	u can get it via your favorite package
3. Enabling import of PDFs into whiteboard		
• Instal Ghowfooript on the server, you can get more information on <u>lang/input server</u> , <u>and they installation</u> . The instructions for installation on be for • Instal SWITPools on the server, you can get more information on <u>lang/input wave infolds ong</u> regarding installation. Some of the Linux distributions already lawe it in have a bug data does lead to wave op doject dimensions in the Whiteboard		
4. Enabling import of .doc, .docx, .ppt, .pptx, all Office Documents into whitebaord		
 OpenOffice-Service started and listening on port 8100, see <u>OpenOfficeConverter</u> for details 		
5. Enabling Recording and import of .avi, .fly, .mov and .mp4 into whiteboard		
 Install FFMpeg. You should get FFMPEG in an up to date copy! For Windows you can download a Build for example from http://fmpeg.arozenu.org/builds/listall.sox in a up to date copy! SoX 12xx will NOT work! 	inux or OSx Users should be able to use one of the various Installation Instructions on the Web. You	need to enable libmp3lame!
Continue with STEP 1		
If you have further questions or need support in installation or hosting:		
Commercial-Support:		
By phone ++49 721 467 27327		
By email		
ervice@openmeetings.de		
Community-Support:		
User-Forums Developer-Forums		
An analysis of an a		

Choose the "Continue with STEP 1" link

OpenMeetings - Installation	

openinteetings instantation		N
Userdata		<i>₽</i>
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 💌	

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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.

OpenMeetings - Installation Complete!

Enter the Application

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

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 mail	
Password	
Domain	local DB [internal]
	Remember login
Not a member?	Sign in
Forgotten your passy	vord? 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

Apache Ope	enMeetings []	[ncubating]	
Home 👻 Record	dings 👻 Rooms 👻	Administration 👻	
6	Hello firstname lasti town Timezone Etc/GN	Manage users and rights	н
	Unread messages <u>0</u> Edit your profile	Connections Manage connections and kick users	
Upload new image	car your prome	Usergroups Manage usergroups	
		Conference rooms	
	//incubator.apache.org/og	Manage system settings	¢
<u>User mailing list (http</u>	://incubator.apache.org/o	Language editor Manage labels and wording	
🐝 My rooms		LDAP Manage LDAP and ADS configurations	
My conference room (fe	or 1-16 users)	Backup Export/Import System Backups) F 2
	÷	Enter	Clic
My webinar room (for 1	I-120 users)		Roo
:	4	Enter	
			Con

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

/usr/local/bin
/usr/bin
/usr/local/bin
/usr/bin
/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	Jach	e Openn	ee	inge	. [.	incu	Dating	91	
Hor	me 👻	Recordings	-	Rooms	s 👻	Adn	ninistratio	n	-
	0 of 67			M <			≎ ▶		1
ID		Кеу				alue	V V	-	ļ
1	crypt C	ClassName	ora.o	penmee			pt.MD5Imp	le	(
2	screen		4						
3	_	rontend_register	1					1	ł
4	default	_group_id	1					1	,
5	default_	_domain_id	1						
6	smtp_s	erver	local	host					L
7	smtp_p		25					. 1	U
8		_email_addr	norep	oly@loca	lhost			-1	
9	_	isername						-1	С
10		iserpass						-1	
11		tp.starttls.enabl			_			-1	
12		ion.name		Meetings	S			-1	
13		lang_id	1 72					-1	
14 15	swftools	-	72 85					-1	
15	swftools	s_jpegquality		local/bin				-1	
17		agick_path	/usr/					-1	
18	sox_pat		/usr/					-1	
19	ffmpeg_		/ 00//	U.I.I				-1	
20	office.p							1	
21	jod.path		/usr/	lib/red5/	weba	pps/op	enmeetings,	/je	
22	rss_fee	d1	null					1	
23	rss_fee	d2	null					1	
24	sendEm	ailAtRegister	1						
25	sendEm	ailWithVerficatio	1						
26	default_	_export_font	Time	sNewRor	man				
27	default.	rpc.userid	1						
28	red5sip	.enable	no						
29	red5sip	.room_prefix	400						
30	red5sip	.exten_context	room	IS					
31	sip.ena		no						
32	sip.real							-1	
33	sip.port							-1	
34		kyname						-1	
35	sip.tunr							-1	
36	sip.code							-1	
37 38	sip.forc	etunnei nxg.enable	true					-1	
38 39		-	no					-1	
39 40		.wrapper.url .client.id						-1	
40		.client.id						-1	
41		.client.domain						-1	
42	openxg	.cient.domalh							

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 # Redirect http traffic to https

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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 https://om.yourdomain.com/openmeetings 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/