POWERPBX

Asterisk Freepbx on Debian (Debian v8, Asterisk v13, Freepbx v13)

Submitted by powerpbx on Fri, 01/15/2016 - 11:34

[(http://debian.org)](http://debian.org)

This guide covers the installation of [Asterisk (http://asterisk.org)](http://asterisk.org) and Freepbx from source on Debian v8.

Tested on:

[Debian (http://debian.org)](http://debian.org) v8 (Jessie)
Asterisk v13
Freepbx v13

Assumptions:

>   Console text mode (multi-user.target)
>   Installation done as root user (#)

Install Prerequisites

```
apt-get update && apt-get upgrade -y
```

```
apt-get install -y build-essential openssh-server apache2 mysql-server
mysql-client bison flex php5 php5-curl php5-cli php5-mysql php-pear php5-
gd curl sox libncurses5-dev libssl-dev libmysqlclient-dev mpg123 libxml2-
dev libnewt-dev sqlite3 libsqlite3-dev pkg-config automake libtool
autoconf git subversion uuid uuid-dev libiksemel-dev libjansson-dev tftpd
postfix mailutils nano ntp chkconfig libspandsp-dev libcurl4-gnutls-dev
```

```
unixodbc unixodbc-dev libmyodbc xinetd e2fsprogs dbus sudo xmlstarlet
linux-headers*
```

It will keep asking to set **MySQL** root password so set that now.

Install legacy pear requirement

```
pear install Console_getopt
```

Set Timezone

Using tzselect is one way to find the correct timezone.

```
tzselect
```

```
## SET TIMEZONE EXAMPLE
timedatectl set-timezone America/Vancouver
```

```
timedatectl status
```

Install

DAHDI

Only required if using a physical server and installing telecom hardware.

```
cd /usr/src
wget http://downloads.asterisk.org/pub/telephony/dahdi-linux-
complete/dahdi-linux-complete-current.tar.gz
tar zxvf dahdi-linux-complete*
cd /usr/src/dahdi-linux-complete*/
make all && make install && make config
systemctl start dahdi
```

If `make all` fails try reboot and run `apt-get install linux-headers*`

PJSIP

```
cd /usr/src
wget http://www.pjsip.org (http://www.pjsip.org) /release/2.5.5/pjproject-
2.5.5.tar.bz2
tar -xjvf pjproject-2.5.5*
cd /usr/src/pjproject-2.5.5*/
make distclean
```

```
./configure --enable-shared --disable-sound --disable-resample \
--disable-video --disable-opencore-amr CFLAGS='-O2 -DNDEBUG'
```

```
make uninstall && ldconfig && make dep && make && make install &&
ldconfig
```

To verify type `ldconfig -p | grep pj` which should show several linked *.so files in /usr/local/lib.

Asterisk

```
cd /usr/src
wget http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-13-
current.tar.gz
tar zxvf asterisk-13-current.tar.gz
cd /usr/src/asterisk-13*/
make distclean
```

```
./configure
```

To verify type `nano -v config.log`.

```
cd /usr/src/asterisk-13*/
make menuselect.makeopts

#To select compile options manually from menu run make menuselect instead
of the following command.
#To list command line options run menuselect/menuselect --list-options
#If Asterisk fails to run on a virtual machine try add "--disable
BUILD_NATIVE"
#To add asterisk realtime for applications such as A2billing add "--
enable res_config_mysql"

menuselect/menuselect --enable cdr_mysql --enable EXTRA-SOUNDS-EN-GSM
menuselect.makeopts
```

Create Asterisk User, compile, install and set ownership.

```
adduser asterisk --disabled-password --shell /sbin/nologin --gecos
"Asterisk User"
```

```
make && make install && chown -R asterisk. /var/lib/asterisk
```

Freepbx

```
cd /usr/src
git clone -b release/13.0 --single-branch https://github.com/FreePBX/
(https://github.com/FreePBX/) framework.git freepbx
```

```
cd /usr/src/freepbx
./start_asterisk start

## replace "somepassword" with the root password you assigned to MySQL
./install -n --dbpass somepassword
```

```
# Minimal module install
fwconsole ma upgrade framework core voicemail sipsettings infoservices \
featurecodeadmin logfiles callrecording cdr dashboard
```

```
fwconsole restart
fwconsole reload
fwconsole chown
```

Configure Apache

Change Apache run user and group name to `asterisk` .

```
sed -i 's/\(APACHE_RUN_USER=\)\(.*\)/\1asterisk/g' /etc/apache2/envvars
sed -i 's/\(APACHE_RUN_GROUP=\)\(.*\)/\1asterisk/g' /etc/apache2/envvars
chown asterisk. /run/lock/apache2
mv /var/www/html/index.html /var/www/html/index.html.disable
systemctl restart apache2
```

Set Freepbx to start on boot

```
nano /etc/systemd/system/freepbx.service
```

```
[Unit]
Description=Freepbx
After=mysql.service

[Service]
Type=oneshot
RemainAfterExit=yes
ExecStart=/usr/sbin/fwconsole start
ExecStop=/usr/sbin/fwconsole stop

[Install]
WantedBy=multi-user.target
```

Now enable it.

```
systemctl enable freepbx
```

```
reboot
```

You should now be able to access FreePBX GUI at `http://yourserverIP`

Post-install tasks are mandatory

Post-install tasks

Lock down the database server.

```
mysql_secure_installation
```

Enter root password and then answer `Y` to everything.

Log File Rotation

If this is not done the log files will keep growing indefinitely.

```
nano /etc/logrotate.d/asterisk
```

```
/var/spool/mail/asterisk
/var/log/asterisk/*log
/var/log/asterisk/messages
/var/log/asterisk/full
/var/log/asterisk/dtmf
/var/log/asterisk/freepbx_dbug
/var/log/asterisk/fail2ban {
        weekly
        missingok
        rotate 4
        #compress
        notifempty
        sharedscripts
        create 0640 asterisk asterisk
        postrotate
        /usr/sbin/asterisk -rx 'logger reload' > /dev/null 2> /dev/null
|| true
        endscript
        su root root
}
```

CDR ODBC

If the deprecated `cdr_mysql.so` module is installed then this is optional, but still recommended.

```
nano /etc/odbcinst.ini
```

```
[MySQL]
Description = ODBC for MySQL
Driver = /usr/lib/x86_64-linux-gnu/odbc/libmyodbc.so
```

```
Setup = /usr/lib/x86_64-linux-gnu/odbc/libodbcmyS.so
FileUsage = 1
```

```
nano /etc/odbc.ini
```

```
[MySQL-asteriskcdrdb]
Description=MySQL connection to 'asteriskcdrdb' database
driver=MySQL
server=localhost
database=asteriskcdrdb
Port=3306
Socket=/var/run/mysqld/mysqld.sock
option=3
```

Test ODBC driver

```
odbcinst -s -q
```

Use username & password in `/etc/asterisk/res_odbc_additional.conf` to test connectivity to the DB via ODBC.

```
isql -v MySQL-asteriskcdrdb freepbxuser 12e7c1f0c041ee853085624ec3bba112=
```

TFTP

If you plan to use hardware SIP phones you will probably want to enable the tftp server.

Create tftp configuration file.

```
nano /etc/xinetd.d/tftp
```

```
service tftp
{
protocol        = udp
port            = 69
socket_type     = dgram
wait            = yes
user            = nobody
server          = /usr/sbin/in.tftpd
server_args     = /tftpboot
disable         = no
}
```

Make the directory and restart the daemon to start tftp.

```
mkdir /tftpboot
chmod 777 /tftpboot
systemctl restart xinetd
```
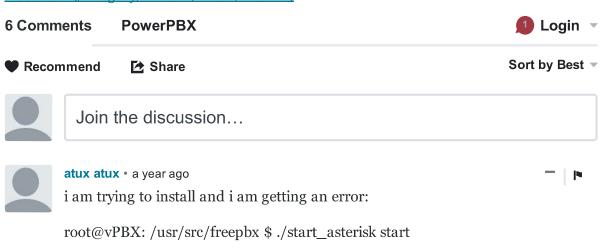
Misc. settings

Change the "upload_max_filesize" from 2M to 20M to allow larger music on hold files.

```
nano +810 /etc/php5/apache2/php.ini
```

Add `AllowOverride All` under `DocumentRoot` so that `.htaccess` files in web folders are active.

```
nano +14 /etc/apache2/sites-available/000-default.conf
```

```
<Directory /var/www/html>
    AllowOverride All
    </Directory>
```

```
service apache2 restart
```

Sections:
[Asterisk](/category/sections/install/asterisk) (/category/sections/install/asterisk)

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atux atux • a year ago   — ┆ ⚑

i am trying to install and i am getting an error:

root@vPBX: /usr/src/freepbx $ ./start_asterisk start

STARTING ASTERISK
Asterisk Started
root@vPBX: /usr/src/freepbx $ ./install -n --dbpass 4hYjf87GJNb
Assuming you are Database Root
Checking if SELinux is enabled…Its not (good)!
No /etc/asterisk/asterisk.conf file detected. Installing…Writing /etc/asterisk/asterisk.conf…Done
Checking if Asterisk is running and we can talk to it as the 'asterisk' user…Error!
Error communicating with Asterisk. Ensure that Asterisk is properly installed and running as the asterisk user
Asterisk appears to be running as asterisk
Try starting Asterisk with the './start_asterisk start' command in this directory
root@vPBX: /usr/src/freepbx $

root@vi bx. /usr/src/freepbx $

what am i doing wrong?

∧ | ∨ • Reply • Share ›

powerpbx Mod ➜ atux atux • a year ago   — | ⚑

Did you install as root user? Is this running on a virtual machine? You have to sometimes alter the ./configure compile flag for some VM's.

If using a VM you can try ./configure CFLAGS='-g -O2 -mtune=native'

∧ | ∨ • Reply • Share ›

atux atux ➜ powerpbx • a year ago   — | ⚑

thanks for your quick reply. i am trying in 2 different VPSs and 4 physical machines.
all running debian 8 with 64bit. the only user is root, no other user in the system. it is a test bed only
the ./configure CFLAGS='-g -O2 -mtune=native is it at asterisk?

∧ | ∨ • Reply • Share ›

atux atux ➜ atux atux • a year ago   — | ⚑

I am afraid, still i am getting the same error.

∧ | ∨ • Reply • Share ›

powerpbx Mod ➜ atux atux • a year ago   — | ⚑

We were able to reproduce this.

The fix (for us) was "apt install sudo"

∧ | ∨ • Reply • Share ›

Luciano ➜ powerpbx • 6 months ago   — | ⚑

GREAT !!! I spent hours troubleshooting and digging until I find your post !!!
SUDO is the answer, solved communication issues (centos 6)
THANKS

∧ | ∨ • Reply • Share ›

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Daniil Vauchankou — Cool working in Virtualbox environment tutorial, but in CentOS 7 for TFTP working we should

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21 comments • a year ago•

imbekoz — Possibly, Thanks I'll try it again...

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