

Asterisk 11 + FreePBX 12 - CentOS 7

Information

```
OS CentOS 7 Updated = Base OS
asterisk-11-current = voip
jansson v2.7
iksemel-1.4 = google voice dep
freepbx-12.0-latest = AdminGUI
xinetd = tftpboot hard sip phones
lame 3.99.5 = mp3 encoder
sox = wav/ogg encoder
```

Disabling SELinux during installation is required

```
sed -i 's/(\^SELINUX=\).*\/SELINUX=disabled/' /etc/selinux/config && reboot
```

Update System & disable FirewallD

```
sestatus
yum -y update
yum -y groupinstall core base "Development Tools"
systemctl stop firewalld
systemctl disable firewalld
```

Install Pre-Reqs :

```
yum install -y kernel-devel kernel-headers e2fsprogs-devel keyutils-libs-devel krb5-devel libogg libsasl-devel libsepol-devel libtiff-devel gmp php-pear php php-gd php-mysql php-pdo php-mbstring mysql-connector-odbc unixODBC unixODBC-devel audiofile-devel libogg-devel openssl-devel zlib-devel perl-DateManip sox git wget net-tools psmisc gcc gcc-c++ make gnutls-devel libxml2-devel subversion doxygen texinfo curl-devel net-snmp-devel neon-devel uuid-devel libuuid-devel sqlite-devel sqlite speex-devel gsm-devel libtool libtool-ltdl libtool-ltdl-devel php-xml lynx mariadb-server mariadb php-process php-xml tftp-server httpd sendmail sendmail-cf newt-devel gtk2-devel crontabs cronie cronie-anacron bzip2 xinetd
```

Download Source Files :

```
cd /usr/src
wget http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-11-current.tar.gz
wget -O jansson.tar.gz https://github.com/akheron/jansson/archive/v2.7.tar.gz
wget https://iksemel.googlecode.com/files/iksemel-1.4.tar.gz
wget http://mirror.freepbx.org/modules/packages/freepbx/freepbx-12.0-latest.tgz
wget http://download2.fop2.com/fop2-2.31.00-centos-x86_64.tgz
wget http://liquidtelecom.dl.sourceforge.net/project/lame/lame/3.99/lame-3.99.5.tar.gz
```

Enable MySQL :

```
systemctl enable mariadb.service
systemctl start mariadb
mysql_secure_installation
```

Enable Apache + Configure for AsteriskUser :

```
adduser asterisk -M -c "Asterisk User"
systemctl enable httpd.service
systemctl start httpd.service
sed -i 's/(\^upload_max_filesize = \).*\/\120M/' /etc/php.ini
sed -i 's/^\(User\|Group\).*\/\1 asterisk/' /etc/httpd/conf/httpd.conf
sed -i 's/AllowOverride None/AllowOverride All/' /etc/httpd/conf/httpd.conf
service httpd restart
```

Install PEAR :

```
pear install db-1.7.14
pear install Console_Getopt
```

```
reboot
```

#Note:

All ./configure & make (install) commands should be attended & run one by one.

Install LAME :

```
cd /usr/src
tar xvfz lame*
cd lame*
```

```
./configure
make
make install
```

Install Google Voice Dependancies :

```
cd /usr/src
tar xf iksemel-*.tar.gz
cd iksemel-*
```

```
./configure
make
make install
```

Install jansson :

```
cd /usr/src
tar vxfz jansson.tar.gz
cd jansson-*
```

```
autoreconf -i
./configure --libdir=/usr/lib64
make
make install
```

Install Asterisk :

```
cd /usr/src
tar xvfz asterisk*.tar.gz
cd asterisk-*
```

```
contrib/scripts/install_prereq install
./configure --libdir=/usr/lib64
contrib/scripts/get_mp3_source.sh
make menuselect
```

```
---> Add-ons (See README-addons.txt)
    --- Extended ---
    XXX chan_mobile
    [*] Chan_oo323
    [*] Format_mp3
    [*] Res_config_mysql
    --- Deprecated ---
    [*] App_mysql
    [*] App_saycountpl
    [*] Cdr_mysql

---> Core Sound Packages
    [*] CORE-SOUNDS-EN-GSM

---> Extras Sound Packages
    [*] EXTRA-SOUNDS-EN-GSM
```

```
make
make install
make config
ldconfig
sed -i 's/ASTARSGS="/"ASTARSGS="-U asterisk"/g' /usr/sbin/safe_asterisk
chown -R asterisk. /var/run/asterisk
chown -R asterisk. /etc/asterisk
chown -R asterisk. /var/{lib,log,spool}/asterisk
chown -R asterisk. /usr/lib64/asterisk
chown -R asterisk. /var/www/
```

Prepare FreePBX SQL Database :

```
export ASTERISK_DB_PW=`dd if=/dev/urandom bs=1 count=32 2>/dev/null | base64 - | cut -c2-18`
mysqladmin -u root create asterisk
mysqladmin -u root create asteriskcdrdb
cd /usr/src/
tar zxvf freepbx*
cd /usr/src/freepbx
mysql asterisk < SQL/newinstall.sql
mysql asteriskcdrdb < SQL/cdr_mysql_table.sql
mysql -u root -e "GRANT ALL PRIVILEGES ON asterisk.* TO asteriskuser@localhost IDENTIFIED BY
'${ASTERISK_DB_PW}';"
mysql -u root -e "GRANT ALL PRIVILEGES ON asteriskcdrdb.* TO asteriskuser@localhost IDENTIFIED BY
'${ASTERISK_DB_PW}';"
mysql -u root -e "flush privileges;"
```

Install FreePBX :

```
cd /usr/src/
tar zxvf freepbx*.t
cd /usr/src/freepbx
./start_asterisk start
./install_amp --installdb --username=asteriskuser --password=${ASTERISK_DB_PW}
```

If an error appears:

```
Enter the path to use for your AMP web root:  
[/ Var / www / html]
```

```
PHP Warning: mkdir (): File exists in /usr/src/freepbx/libfreepbx.install.php on line 199  
[FATAL] Can not create / var / www / html!
```

Just run the installation again:

```
./install_amp --installdb --username=asteriskuser --password=${ASTERISK_DB_PW}
```

Reload/Refresh via amportal

```
amportal a ma reload  
amportal a ma refreshsignatures  
amportal chown  
ln -s /var/lib/asterisk/moh /var/lib/asterisk/mohmp3  
amportal restart
```

TFTP :

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

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

nano /etc/xinetd.d/tftp

```
#server_args = -s /var/lib/tftpboot  
server_args = -s /tftpboot  
  
#disable=yes  
disable=no
```

```
mkdir /tftpboot  
chmod 777 /tftpboot  
service xinetd restart
```

Backup Tars! :

```
cd /usr/src  
mkdir tars  
mv *.tar.gz tars/  
mv *.tgz tars/  
mv *.gz tars/  
tar czvf VoIP_Tars tars/ -R
```

REBOOT && PROFIT