

Installing FreePBX 2.11 on Centos 6.3

Install Centos 6.3

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Initial System Setup

You **MUST** run all of these commands as the root user!

You **MUST** disable selinux. selinux can cause strange behavior during the install

Disable selinux

In /etc/sysconfig/selinux , change the following lines:

```
--- begin lines ---  
SELINUX=disabled  
SELINUXTYPE=targeted  
--- end lines ---
```

reboot, and verify the selinux status by running 'sestatus'. It should say:

```
SELinux status: disabled
```

Update Your System

```
yum -y update
yum groupinstall core
yum groupinstall base
```

Install Required Dependencies

```
yum install gcc gcc-c++ lynx bison mysql-devel mysql-server php php-mysql
php-pear php-mbstring tftp-server httpd make ncurses-devel libtermcap-
devel sendmail sendmail-cf caching-nameserver sox newt-devel libxml2-devel
libtiff-devel audiofile-devel gtk2-devel subversion kernel-devel git
subversion kernel-devel php-process crontabs cronie cronie-anacron
```

IPTables

Keeping IPTables turned off indefinitely is strongly discouraged. You will incur the wrath of high fees and hackers

You must disable the default iptables. You can re-enable it later, once you have made the appropriate changes. Information on iptables can be found with a quick Google search. If iptables is left running, it will (at very least) block you from accessing the web interface.

See the current status:

```
chkconfig iptables --list
```

Disable iptables:

```
chkconfig --level 0123456 iptables off
```

Stop the service (this skips rebooting again):

```
service iptables stop
```

Auto Start MySQL

You must have mysql running for freepbx to operate normally. You need to set it to start at boot time. with the following command:

```
chkconfig --level 345 mysqld on
```

Then start mysqld if you don't plan on rebooting during the installation phase:

```
service mysqld start
```

Auto Start Apache

You will want Apache running, so you can access the FreePBX admin interface, You need to set it to start at boot time. with the following command:

```
chkconfig --level 345 httpd on
```

Then start apache if you don't plan on rebooting during the installation phase:

```
service httpd start
```

Install PearDB

```
pear install db-1.7.14
```

You may receive a warning:

```
WARNING: "pear/DB" is deprecated in favor of "pear/MDB2"
```

At this time it is safe to ignore that message

Reboot server

```
reboot
```

Install Dependencies for Google Voice

Install iksemel

```
cd /usr/src
wget https://iksemel.googlecode.com/files/iksemel-1.4.tar.gz
tar xf iksemel-*.tar.gz
cd iksemel-*
./configure
make
make install
```

Install and Configure Asteriskfreepbx-2.11.0.43.tgz

Download Asterisk source files.

```
cd /usr/src
wget http://downloads.asterisk.org/pub/telephony/dahdi-linux-complete
/dahdi-linux-complete-current.tar.gz
wget http://downloads.asterisk.org/pub/telephony/libpri/libpri-1.4-current.
tar.gz
wget http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-11-
current.tar.gz
```

Compile and install DAHDI.

If you have no TDM cards you can skip this step

If you encounter this message: *You do not appear to have the sources for the 2.6.32-358.23.2.el6.x86_64 kernel installed.*
Run this command:

```
yum install -y kernel-headers-`uname -r` kernel-devel-`uname -r`
glibc-headers
```

If that doesn't fix the problem, you may have removed the directory `/usr/src/kernels` . It's easy to fix. Just run these two commands:

```
yum remove kernel-devel
yum install kernel-devel
```

You can now repeat the installation steps below.

```
cd /usr/src
tar xvfz dahdi-linux-complete-current.tar.gz
cd dahdi-linux-complete-*
make all
make install
make config
```

Compile and install LIBPRI.

If you have no TDM cards you can skip this step

```
cd /usr/src
tar xvfz libpri-1.4-current.tar.gz
cd libpri-*
make
make install
```

Compile and install Asterisk

During the make menuselect, please choose all options you wish to compile into Asterisk.
For example, if you want to enable srtp, be sure to enable it at:

```
Resource Modules -> res_srtp
```

```
cd /usr/src
tar xvfz asterisk-11-current.tar.gz
cd asterisk-*
./configure
contrib/scripts/get_mp3_source.sh
make menuselect
make
make install
make config
make progdocs
```

Install Asterisk-Extra-Sounds

```
cd /var/lib/asterisk/sounds
wget http://downloads.asterisk.org/pub/telephony/sounds/asterisk-extra-sounds-en-gsm-current.tar.gz
tar xfz asterisk-extra-sounds-en-gsm-current.tar.gz
rm -f asterisk-extra-sounds-en-gsm-current.tar.gz
```

Install and Configure FreePBX

Download and extract FreePBX.

```
cd /usr/src
wget http://mirror.freepbx.org/freepbx-2.11.0.43.tgz
tar vxzf freepbx-2.11.0.43.tgz
```

Now create the Asterisk user and set ownership permissions.

```
adduser asterisk -M -c "Asterisk User"
chown asterisk. /var/run/asterisk
chown -R asterisk. /etc/asterisk
chown -R asterisk. /var/{lib,log,spool}/asterisk
chown -R asterisk. /usr/lib/asterisk
mkdir /var/www/html
chown -R asterisk. /var/www/
```

A few small modifications to Apache.

```
sed -i 's/\(^upload_max_filesize = \).*\/120M/' /etc/php.ini
cp /etc/httpd/conf/httpd.conf /etc/httpd/conf/httpd.conf_orig
sed -i 's/^\(User\|Group\).*\/\1 asterisk/' /etc/httpd/conf/httpd.conf
service httpd restart
```

Configure Asterisk database in MYSQL.

```
cd /usr/src/freepbx
export ASTERISK_DB_PW=amp109
mysqladmin -u root create asterisk
mysqladmin -u root create asteriskcdrdb
mysql -u root asterisk < SQL/newinstall.sql
mysql -u root asteriskcdrdb < SQL/cdr_mysql_table.sql
```

Set permissions on MYSQL database.

```
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;"
```

Restart Asterisk and install FreePBX.

```
cd /usr/src/freepbx
./start_asterisk start
./install_amp
amportal a ma installall
amportal a reload
```

** If ". /install_amp" fails to run correctly, in terminal type:

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

Finally, one last mod and start FreePBX.

```
ln -s /var/lib/asterisk/moh /var/lib/asterisk/mohmp3
amportal start
```

Start FreePBX

Navigate:

<http://yourlocalipaddress/html> or if you prefer <http://localhost/admin>

After you enable and update the modules in FreePBX You might see the following error.

Symlink from modules failed

To correct this error do the following:

Delete the list of failed files

```
cd /etc/asterisk
rm ccss.conf confbridge.conf features.conf sip.conf iax.conf logger.
conf extensions.conf sip_notify.conf
```

Then on the FreePBX webUI go to the 'Module Admin' and uninstall and reinstall the 'Camp On' module. This should resolve the Symlink issue.