????

- CentOS 6.8 x86_64
- Asterisk 13
- FreePBX 13

?????

?? SELinux

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

????

```
yum update
yum groupinstall core base "Development Tools"
```

??????

```
yum install gcc gcc-c++ lynx bison mysql-devel mysql-server php php-mysql php-pear php-mbstring php-xml 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 wget vim php-xml uuid-devel libtool sqlite-devel unixODBC mysql-connector-odbc libuuid-devel binutils-devel php-ldap
```

?????

```
chkconfig iptables off
service iptables stop
```

?? MySQL ??

```
chkconfig mysqld on
service mysqld start
```

TIP:

???? DB ???

?? Apache ??

```
chkconfig httpd on
service httpd start
```

?? PearDB

```
pear channel-update pear.php.net
pear install db-1.7.14
```

TIP:

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

????

```
reboot
```

?? Google Voice - iksemel ??????

```
cd /usr/src
git clone https://github.com/meduketto/iksemel.git
cd iksemel
./autogen.sh
./configure
make
make check
make install
```

???? asterisk

```
adduser asterisk -M -c "Asterisk User"
```

?? Asterisk

> NOTE: ????????????????????? DAHDI ? LibPRI ??

???? DAHDI & LibPRI????

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

???? pjproject

> TIP: ????? 32-bit??????? --libdir=/usr/lib

```
cd /usr/src
wget http://www.pjsip.org/release/2.5.5/pjproject-2.5.5.tar.bz2
tar xjf pjproject-2.5.5.tar.bz2
cd pjproject-2.5.5
CFLAGS='-DPJ_HAS_IPV6=1' ./configure --prefix=/usr --enable-shared --disable-sound \
--disable-resample --disable-video --disable-opencore-amr --libdir=/usr/lib64
make dep
make clean
make
make install
```

???? jansson

```
cd /usr/src
git clone https://github.com/akheron/jansson.git
cd jansson
autoreconf -i
./configure --libdir=/usr/lib64
make
make install
```

???? SpanDSP

```
cd /usr/src
wget http://soft-switch.org/downloads/spandsp/spandsp-0.0.6.tar.gz
tar xzf spandsp-0.0.6.tar.gz
cd spandsp-0.0.6
./configure --libdir=/usr/lib64
make
make install
```

???? Asterisk

```
cd /usr/src
wget http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-13-current.tar.gz
tar xzf asterisk-13-current.tar.gz
cd asterisk-13.11.2/
contrib/scripts/install_prereq install
./configure --libdir=/usr/lib64
contrib/scripts/get_mp3_source.sh
make menuselect
```

```
    Add-ons ->
     - format_mp3
     - res_config_mysql
     - cdr_mysql
```

```
make
make install
make config
ldconfig
```

???? Asterisk ???

```
cd /var/lib/asterisk/sounds
wget http://downloads.asterisk.org/pub/telephony/sounds/asterisk-core-sounds-en-wav-current.tar.gz
wget http://downloads.asterisk.org/pub/telephony/sounds/asterisk-extra-sounds-en-wav-current.tar.gz
tar xzf asterisk-core-sounds-en-wav-current.tar.gz -C en/
tar xzf asterisk-extra-sounds-en-wav-current.tar.gz -C en/
```

```
wget http://downloads.asterisk.org/pub/telephony/sounds/asterisk-core-sounds-en-g722-current.tar.gz
wget http://downloads.asterisk.org/pub/telephony/sounds/asterisk-extra-sounds-en-g722-current.tar.gz
tar xzf asterisk-core-sounds-en-g722-current.tar.gz -C en/
tar xzf asterisk-extra-sounds-en-g722-current.tar.gz -C en/
```

?????

```
chown asterisk. /var/run/asterisk
chown -R asterisk. /etc/asterisk
chown -R asterisk. /var/{lib,log,spool}/asterisk
chown -R asterisk. /var/www/
```

?? Apache & PHP

```
sed -i 's/\(^upload_max_filesize = \).*/\120M/' /etc/php.ini
sed -i 's/^\(User\|Group\).*/\1 asterisk/' /etc/httpd/conf/httpd.conf
sed -i ':a;N;$!ba;s/AllowOverride None/AllowOverride All/2' /etc/httpd/conf/httpd.conf
service httpd restart
```

?? FreePBX

```
cd /usr/src
wget http://mirror.freepbx.org/modules/packages/freepbx/freepbx-13.0-latest.tgz
tar xfz freepbx-13.0-latest.tgz
cd freepbx
service asterisk stop
./start_asterisk start
./install -n
```

??????

```
fwconsole ma upgrade framework core voicemail sipsettings infoservices \
featurecodeadmin logfiles callrecording cdr dashboard music conferences

fwconsole restart
fwconsole reload
fwconsole chown
```

?????????????

```
wget -P /etc/yum.repos.d/ -N http://yum.schmoozecom.net/schmooze-commercial/
schmooze-commercial.repo
yum clean all
yum install php-5.3-zend-guard-loader sysadmin fail2ban incron ImageMagick
/var/lib/asterisk/bin/freepbx_setting MODULE_REPO
http://mirror1.freepbx.org,http://mirror2.freepbx.org
```

> NOTE:
> ????????????????????????? CentOS 7?

?? Apache ??????? SysAdmin????

```
service httpd restart
fwconsole ma download sysadmin
fwconsole ma install sysadmin
```

F.A.Q
?? iksemel ?

> ???
> checking for headers required to compile python extensions... not found
> configure: error: could not find Python headers

Ans:

```
yum install python-devel
```

> ???
> /usr/src/iksemel/missing: line 52: makeinfo??????
> WARNING: `makeinfo' is missing on your system. You should only need it if
>   you modified a `.texi' or `.texinfo' file, or any other file
>   indirectly affecting the aspect of the manual. The spurious
>   call might also be the consequence of using a buggy `make' (AIX,

DU, IRIX). You might want to install the `Texinfo' package or
the `GNU make' package. Grab either from any GNU archive site.

Ans:

yum install textinfo

????

- http://wiki.freepbx.org/display/FOP/...13+on+CentOS+6
- https://www.powerpbx.org/content/ast...13-freepbx-v13