

FreeSWITCH + FusionPBX

CentOS 6.5 64-Bit

This is a basic guide to install FreeSWITCH and FusionPBX on CentOS 6.5. This guide assumes you are running the 64-bit version of CentOS and has been written for a fresh installation, adapt to your needs.

No configuration of FreeSWITCH is performed other than that is required for FusionPBX and FreeSWITCH to work together.

This guide installs FreeSWITCH and its dependencies, FusionPBX, NGINX, PHP-FPM and MySQL.

*All commands are run as root. If root account is not available, use sudo and switch to superuser using **sudo -s** or **sudo su***

NOTE:

*This guide is a **ROUGH FIRST CUT** and is extremely vague. In its current state, this will get you a basic working installation only.*

TODO:

- Add descriptions on what each step is for and why
- Configure PHP and NGINX to allow larger file uploads.
- Fix session folder permissions reverting.
- Expand for more exotic installations
- Script into easy to use setup script (For the lazy)
- Create a puppet class to automate some of the below and run the above script.

Install Repositories

```
# Enable the FreeSWITCH repo
yum -y install http://files.freeswitch.org/freeswitch-release-1-0.noarch.rpm

# Enable the EPEL repo
yum -y install http://dl.fedoraproject.org/pub/epel/6/x86\_64/epel-release-6-8.noarch.rpm

# Enable the RPMForge repo
yum -y install http://pkgs.repoforge.org/rpmforge-release/rpmforge-release-0.5.3-1.el6.rf.x86\_64.rpm
```

Update your system

```
yum update -y
```

Disable SELinux

```
sed -i -e s,'SELINUX=enforcing','SELINUX=disabled', /etc/selinux/config
```

Reboot to apply SELinux changes

```
reboot
```

Install required packages

```
yum -y install sox freeswitch-config-vanilla freeswitch-sounds-en* freeswitch-sounds-music*
freeswitch-format* freeswitch-codec* mpg123 subversion php php-common php-pdo php-soap php-
xml php-xmllrpc php-mysql mysql-connector-odbc php-fpm nginx mysql-server unixODBC-devel
```

Enable services for start-up at boot

```
chkconfig --add freeswitch
chkconfig freeswitch on
chkconfig php-fpm on
chkconfig nginx on
chkconfig mysqld on
```

Start and set-up MySQL

```
service mysqld start
mysql_secure_installation
```

```
Enter current password for root (enter for none): <Enter>
Set root password? [Y/n] <y>
New password: <set your root password>
Re-enter new password: <retype your root password>
Remove anonymous users? [Y/n] <y>
Disallow root login remotely? [Y/n] <y> (Set this to your requirements)
Remove test database and access to it? [Y/n] <y>
Reload privilege tables now? [Y/n] <y>
```

Set up ODBC

```
ln -s /usr/lib64/libmyodbc5.so /usr/lib64/libmyodbc.so
```

Uncomment the MySQL sample driver configuration in /etc/odbcinst.ini if commented.

Add the following with the correct information into your odbc.ini file located at /etc/odbc.ini (If it doesn't exist, create it)

```
[fusionpbx]
Description      = MySQL connection to 'fusionpbx' database
Driver           = MySQL
Database         = fusionpbx
Server           = localhost
UserName         = root
Password        = <mysql root password you created earlier>
Port             = 3306
Socket           = /var/lib/mysql/mysql.sock
```

Note: If you are connecting your freeswitch server to a remote MySQL database, you can take out the last line from the above setting. Take off the "Socket = /var/lib/mysql/mysql.sock" line.

Set up Web configuration files and create required directories

```
# Create Directories
mkdir /etc/nginx/sites-available
mkdir /etc/nginx/sites-enabled

# Remove default config files
cd /etc/nginx
rm -f nginx.conf conf.d/*

# Get pre-set config files direct from FusionPBX
wget http://www.fusionpbx.com/downloads/centos/nginx/nginx.conf -O /etc/nginx/nginx.conf
wget http://www.fusionpbx.com/downloads/centos/nginx/fusionpbx.conf -O /etc/nginx/sites-available/fusionpbx.conf

# Enable the FreeSWITCH "site"
ln -s /etc/nginx/sites-available/fusionpbx.conf /etc/nginx/sites-enabled/fusionpbx.conf

# Adapt configuration file for our environment
sed -i 's/user www-data/user freeswitch daemon/g' /etc/nginx/nginx.conf
sed -i 's/user = apache/user = freeswitch/g' /etc/php-fpm.d/www.conf
sed -i 's/group = apache/group = daemon/g' /etc/php-fpm.d/www.conf

# Delete the pre-set SSL configuration
# If you require SSL, don't run this command, instead edit this file and adapt to your needs
sed -i "/ssl/d" /etc/nginx/sites-available/fusionpbx.conf

# Set permissions on the session directory
chown -R freeswitch:daemon -R /var/lib/php/session

# Add fall-back for when session directory permissions change randomly
usermod -a -G apache freeswitch
```

Install FusionPBX

```
cd /var/www
svn checkout http://fusionpbx.googlecode.com/svn/trunk/fusionpbx /var/www/fusionpbx

# Set Permissions
chown -R freeswitch:daemon /var/www/fusionpbx
```

Create Storage and Backup Directories

```
mkdir /storage
mkdir /backup
```

Create boot script to set correct permissions

```
cat > /etc/rc.local <<EOF
#!/bin/sh
#
# This script will be executed *after* all the other init scripts.
# You can put your own initialization stuff in here if you don't
# want to do the full Sys V style init stuff.

touch /var/lock/subsys/local

CHOWN="chown freeswitch:daemon -R"

\${CHOWN} /var/run/freeswitch
\${CHOWN} /var/lib/freeswitch
\${CHOWN} /var/log/freeswitch
\${CHOWN} /usr/lib64/freeswitch
\${CHOWN} /usr/share/freeswitch
\${CHOWN} /etc/freeswitch
\${CHOWN} /var/lib/php/session
\${CHOWN} /storage
\${CHOWN} /backup

exit 0
EOF

chmod +x /etc/rc.local
```

Set correct permissions

```
/etc/rc.local
```

Install NTP (Optional)

```
yum install ntp
chkconfig ntpd on
ntpdate pool.ntp.org
service ntpd start
```

Start Services and check for errors

```
# Start PHP-FPM
service php-fpm start

# Start FreeSWITCH
service freeswitch start

# Start NGINX
service nginx start
```

Configure FusionPBX

Open up a web browser and navigate to the IP address of your CentOS machine, E.G: <http://192.168.0.1/>

Page 1:

Database type: mysql
Username: fusion <This is the user you will use to log into the web interface>
Password: <This will be the password you will use to log into the web interface>
Theme: I recommend "enhanced"

Click "Next"

Page 2:

Database Host: localhost
Database Port: 3306
Database Name: fusionpbx
Database Username: fusionpbx
Database Password: <Set a password that would be hard to guess, this is what the web interface uses to interact with the database>
Create Database Username: root
Create Database Password: <the root password you set when you configured mysql>

Click "Next"

Log In:

Log In using the login form to the top right of the page using the username and password you set up on **Page 1**

Update incorrect preset settings:

Go to *Advanced* -> *Default Settings*

Server:

Change the value of backup to /backup

Switch:

Change the value of base to /usr/share/freeswitch

Change the value of mod to /usr/lib64/freeswitch/mod

Go to *Advanced* -> *Database* and click the Add button (+)

Driver: ODBC
Type: MySQL
Host:
Port:
Name: fusionpbx
Username: root
Password: <your mysql root password>
Path:
Description:

Go to *System* -> *Settings*

Change *Mod Shout Decoder* to mpg123

That's it, You're Done!