

FreeBSD Administration - Support #667

Install FreeSWITCH and FusionPBX on FreeBSD

10/01/2015 03:42 PM - Daniel Curtis

Status:	Suspended	Start date:	10/01/2015
Priority:	High	Due date:	
Assignee:	Daniel Curtis	% Done:	70%
Category:	Voice over IP Server	Estimated time:	4.00 hours
Target version:	FreeBSD 9	Spent time:	4.00 hours

Description

This is a guide for setting up FreeSWITCH with Nginx, PostgreSQL, and FusionPBX on FreeBSD 9.

Prepare the Environment

- Make sure the system is up to date:

```
pkg update && pkg upgrade && portsnap fetch extract
```

- Install a few dependencies:

```
pkg install portmaster screen sox cmake autoconf automake lua51 curl git gmake jpeg ldns libed  
it binutils freetype2 libtool openssl pcre pkgconf flex speex sqlite3 wget subversion postgres  
ql94-client sofia-sip x264 libvpx opus ffmpeg
```

```
pkg2ng
```

Install FreeSWITCH

NOTE: I could not build FreeSWITCH from ports, so this guide will compile from GitHub.

- Make a source directory and switch to it:

```
mkdir /usr/local/src && cd /usr/local/src
```

- Clone the latest version of freeswitch:

```
git clone -b v1.6 https://freeswitch.org/stash/scm/fs/freeswitch.git
```

- Build and install freeswitch:

```
./bootstrap.sh -j  
./configure --enable-core-pgsql-support  
gmake  
gmake install cd-sounds-install cd-moh-install
```

- While running gmake, I encountered an error. To work around this I disabled mod_fsv:

```
sed -i '' -e 's/applications\/mod_fsv\/#applications\/mod_fsv/' modules.conf
```

Freeswitch rc script

- Create the rc script:

```
vi /usr/local/etc/rc.d/freeswitch
```

- And add the following

```
#!/bin/sh
#
# PROVIDE: freeswitch
# REQUIRE: LOGIN cleanvar
# KEYWORD: shutdown
#
# Add the following lines to /etc/rc.conf to enable freeswitch:
# freeswitch_enable:      Set it to "YES" to enable freeswitch.
#                          Default is "NO".
# freeswitch_flags:       Flags passed to freeswitch-script on startup.
#                          Default is "".
#
. /etc/rc.subr
name="freeswitch"
rcvar=${name}_enable
load_rc_config $name
: ${freeswitch_enable="NO"}
: ${freeswitch_pidfile="/usr/local/freeswitch/run/freeswitch.pid"}
start_cmd=${name}_start
stop_cmd=${name}_stop
pidfile=${freeswitch_pidfile}
freeswitch_start() {
    /usr/local/freeswitch/bin/freeswitch ${freeswitch_flags}
    echo -n "Starting FreeSWITCH: "
}
freeswitch_stop() {
    /usr/local/freeswitch/bin/freeswitch -stop
}
run_rc_command "$1"
```

- Make the script executable:

```
chmod +x /usr/local/etc/rc.d/freeswitch
```

- Start and enable freeswitch to start at boot:

```
echo 'freeswitch_enable="YES"' >> /etc/rc.conf
echo 'freeswitch_flags="-nc"' >> /etc/rc.conf
service freeswitch start
```

- **NOTE:** If your Freeswitch server has a IP address and not behind a NAT router, add the -nonat parameter to the freeswitch_flags. This will disable NAT traversal feature of FreeSWITCH.

Install FusionPBX

- Install fusionpbx:

```
portmaster www/fusionpbx
```

- **NOTE:** Make sure to enable [X]PDO_PGSQL while configuring fusionpbx.

Install Nginx

- Install Nginx

```
pkg install nginx
```

- Start and enable nginx at boot:

```
echo 'nginx_enable="YES"' >> /etc/rc.conf  
service nginx start
```

- Create a configuration directory to make managing individual server blocks easier

```
mkdir /usr/local/etc/nginx/conf.d
```

- Edit the main nginx config file:

```
vi /usr/local/etc/nginx/nginx.conf
```

- And strip down the config file and add the include statement at the end to make it easier to handle various server blocks:

```
#user nobody;  
worker_processes 1;  
error_log /var/log/nginx-error.log;  
  
events {  
    worker_connections 1024;  
}  
  
http {  
    include mime.types;  
    default_type application/octet-stream;  
  
    sendfile on;  
    #tcp_nopush on;  
  
    #keepalive_timeout 0;  
    keepalive_timeout 65;  
  
    #gzip on;  
  
    # Load config files from the /etc/nginx/conf.d directory  
    include /usr/local/etc/nginx/conf.d/*.conf;  
}
```

- Now create a config for pbx.example.com:

```
vi /usr/local/etc/nginx/conf.d/pbx.example.com.conf
```

- And add the following:

```
server{  
    listen 80;  
    server_name pbx.example.com;  
  
    access_log /var/log/nginx-access.log;  
    error_log /var/log/nginx-error.log;
```

```

client_max_body_size 10M;
client_body_buffer_size 128k;

root /usr/local/www/fusionpbx;

location / {
    root /usr/local/www/fusionpbx;
    index index.php;
}

location ~ /\.php$ {
    fastcgi_pass unix:/var/run/php-fpm.sock;
    fastcgi_index index.php;
    include fastcgi_params;
    fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
}

# Disable viewing .htaccess & .htpassword & .db
location ~ .htaccess {
    deny all;
}
location ~ .htpassword {
    deny all;
}
location ~^.+.(db)$ {
    deny all;
}
}

```

- Change the freeswitch config file ownership to the www user:

```
chown -R www:www /usr/local/freeswitch/conf
```

- Change the fusionpbx files ownership to the www user:

```
chown -R www:www /usr/local/www/fusionpbx
```

Configure PHP

- Configure the default PHP settings

```
cp /usr/local/etc/php.ini-production /usr/local/etc/php.ini
```

- Edit the php-fpm config file:

```
vi /usr/local/etc/php-fpm.conf
```

- Make the following changes:

```
listen = /var/run/php-fpm.sock
listen.owner = www
listen.group = www
listen.mode = 0660
```

- Start and enable PHP-FPM at boot:

```
echo 'php_fpm_enable="YES"' >> /etc/rc.conf
service php-fpm start
```

Setup Database

NOTE: This guide has an external postgresql server and does not cover setting up the server.

- Create the database and user:

```
su postgres
createuser -s -e fusionpbxuser
createdb -O fusionpbxuser fusionpbxdb
psql -d fusionpbxdb -U fusionpbxuser
ALTER USER fusionpbxuser with PASSWORD 'SuperSecretPassword';
```

- Then open <http://pbx.example.com> in a web browser and finish the installation; make sure to select the **postgresql** database adapter.

Resources

- http://wiki.fusionpbx.com/index.php?title=FreeBSD_Install
- <https://freeswitch.org/confluence/display/FREESWITCH/FreeBSD>
- <https://code.google.com/p/libyuv/wiki/GettingStarted>

History

#1 - 10/01/2015 03:47 PM - Daniel Curtis

- Description updated

- Status changed from New to In Progress

- % Done changed from 0 to 20

#2 - 10/01/2015 04:51 PM - Daniel Curtis

- Description updated

- % Done changed from 20 to 30

#3 - 10/01/2015 07:57 PM - Daniel Curtis

- Description updated

- % Done changed from 30 to 50

#4 - 10/01/2015 08:19 PM - Daniel Curtis

- Description updated

#5 - 11/15/2015 05:01 PM - Daniel Curtis

- Description updated

#6 - 11/15/2015 05:46 PM - Daniel Curtis

- Description updated

- % Done changed from 50 to 70

#7 - 02/18/2022 08:05 PM - Daniel Curtis

- Status changed from In Progress to Suspended