


# Debian 9 Stretch

## About

 FreeSWITCH project has been moved to GitHub: <https://github.com/signalwire/freeswitch>  
Please open new issues in: <https://github.com/signalwire/freeswitch/issues>

 Debian 10 "Buster" is now officially supported by FreeSWITCH™ .  
Dependencies are available from FreeSWITCH repository via the "apt-get build-dep freeswitch" command.  
Debian 10 "Buster" is the reference platform for FreeSWITCH™ as of version 1.10 and is STRONGLY recommended for all applications due to its stability and broad support for the system libraries needed by FreeSWITCH.

## Breaking change in FreeSWITCH 1.10

From FreeSWITCH 1.10, `pgsql` is not in core (`mod_commands` ?), but in `mod_pgsql`.

 You MUST NOT load `mod_pgsql` in `modules.conf.xml` , but in `pre_load_modules.conf.xml` , an additional XML file also in `conf/autoload_configs/` directory.

### **pre\_load\_modules.conf.xml**

```
<configuration name="pre_load_modules.conf" description="Modules">
  <modules>
    <!-- Databases -->
    <!-- <load module="mod_mariadb"/> -->
    <load module="mod_pgsql"/>
  </modules>
</configuration>
```

## Commit Log

See all FreeSWITCH commits here: <https://github.com/signalwire/freeswitch/commits/master>

## Easy Way

# Installing From Debian Packages

## Latest Release Branch:

### Release package

```
apt-get update && apt-get install -y gnupg2 wget
wget -O - https://files.freeswitch.org/repo/deb/debian-release/fsstretch-archive-keyring.asc | apt-key add -

echo "deb http://files.freeswitch.org/repo/deb/debian-release/ stretch main" > /etc/apt/sources.list.d
/freeswitch.list
echo "deb-src http://files.freeswitch.org/repo/deb/debian-release/ stretch main" >> /etc/apt/sources.list.d
/freeswitch.list

# you may want to populate /etc/freeswitch at this point.
# if /etc/freeswitch does not exist, the standard vanilla configuration is deployed
apt-get update && apt-get install -y freeswitch-meta-all
```

FreeSWITCH™ is now installed and can be accessed with

### FreeSwitch CLI

```
fs_cli -rRS
```

## Master Branch ("git"):

**WARNING** not suitable for production

### Master Test Package

```
wget -O - https://files.freeswitch.org/repo/deb/debian-unstable/freeswitch_archive_g0.pub | apt-key add -

echo "deb http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" > /etc/apt/sources.list.d
/freeswitch.list
echo "deb-src http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" >> /etc/apt/sources.list.d
/freeswitch.list

# you may want to populate /etc/freeswitch at this point.
# if /etc/freeswitch does not exist, the standard vanilla configuration is deployed
apt-get update && apt-get install -y freeswitch-meta-all
```

## Building Debian Packages From Master Branch

**WARNING** not suitable for production

The master branch depends on different libraries which are not available as packages in Debian distribution, but are available from FreeSWITCH repository. Thus, you will need internet access to the FreeSWITCH DEB repository.

## Build your own .deb Master package

```
wget -O - https://files.freeswitch.org/repo/deb/debian-unstable/freeswitch_archive_g0.pub | apt-key add -

echo "deb http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" > /etc/apt/sources.list.d
/freeswitch.list
echo "deb-src http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" >> /etc/apt/sources.list.d
/freeswitch.list

apt-get update && apt-get install -y xz-utils devscripts cowbuilder git screen

# nonstandard packages from freeswitch repo are not trusted by pbuilder !!
echo "ALLOWUNTRUSTED=yes" >> /etc/pbuilderrc

# get the latest master. Use the -b flag to get a specific branch
mkdir /usr/src/freeswitch-debs
git clone https://github.com/signalwire/freeswitch.git /usr/src/freeswitch-debs/freeswitch

cd /usr/src/freeswitch-debs
# here it's good to run screen with logging, so that you can detach from the shell prompt
screen -L
cd freeswitch
./debian/util.sh build-all -aamd64 -cstretch

# here you can detach by Ctrl-a Ctrl-d and see the log files in /usr/src/freeswitch-debs/log/ folder.
# The build may last about an hour, depending on your CPU speed.
# If the build is successful, you will have a bunch of .deb files in /usr/src/freeswitch-debs
```

## Compiling from source code

### Building From Source

#### Compiling Release Branch (production)

## Release source build

```
wget -O - https://files.freeswitch.org/repo/deb/debian-release/fsstretch-archive-keyring.asc | apt-key add -

echo "deb http://files.freeswitch.org/repo/deb/debian-release/ stretch main" > /etc/apt/sources.list.d
/freeswitch.list
echo "deb-src http://files.freeswitch.org/repo/deb/debian-release/ stretch main" >> /etc/apt/sources.list.d
/freeswitch.list

apt-get update

# Install dependencies required for the build
apt-get build-dep freeswitch

# then let's get the source. Use the -b flag to get a specific branch
cd /usr/src/
git clone https://github.com/signalwire/freeswitch.git -bv1.10 freeswitch
cd freeswitch

# Because we're in a branch that will go through many rebases, it's
# better to set this one, or you'll get CONFLICTS when pulling (update).
git config pull.rebase true

# ... and do the build
./bootstrap.sh -j
./configure
make
make install
```

## Compiling Latest Master (for testing)

**WARNING**

not suitable for production

## Master source build

```
wget -O - https://files.freeswitch.org/repo/deb/debian-unstable/freeswitch_archive_g0.pub | apt-key add -

echo "deb http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" > /etc/apt/sources.list.d
/freeswitch.list
echo "deb-src http://files.freeswitch.org/repo/deb/debian-unstable/ stretch main" >> /etc/apt/sources.list.d
/freeswitch.list

apt-get update

# Install dependencies required for the build
apt-get build-dep freeswitch

# Then let's get the source. Use the -b flag to get a specific branch
cd /usr/src/
git clone https://github.com/signalwire/freeswitch.git freeswitch
cd freeswitch

# Because we're in a branch that will go through many rebases, it's
# better to set this one, or you'll get CONFLICTS when pulling (update).
git config pull.rebase true

# ... and do the build

# The -j argument spawns multiple threads to speed the build process, but causes trouble on some systems
./bootstrap.sh -j

# if you want to add or remove modules from the build, edit modules.conf
vi modules.conf

# add a module by removing '#' comment character at the beginning of the line
# remove a module by adding the '#' comment character at the beginning of the line
# containing the name of the module to be skipped in the build process

./configure
make
make install

# Install audio files:
make cd-sounds-install cd-moh-install

# To update an installed build:
cd /usr/src/freeswitch
make current
```

## Before Starting FreeSWITCH

If you built FreeSWITCH™ from source code you should set file permissions and ownership before starting FreeSWITCH. Follow the [post-installation instructions](#).

## Compiling from source code

### Verto Communicator quick start guide for Debian 9

```
# get nodejs from source, needed for npm
apt-get update
apt-get -y install apache2 curl
curl -sL https://deb.nodesource.com/setup_11.x | bash -
apt-get update
apt-get -y install nodejs

# get FreeSWITCH source code
git clone https://github.com/signalwire/freeswitch.git /usr/src/freeswitch

# build Verto Communicator
cd /usr/src/freeswitch/html5/verto/verto_communicator
npm install -g grunt grunt-cli bower
npm install
bower --allow-root install
grunt build

# copy contents of dist folder to a web directory
mkdir -p /var/www/html/vc
cp -r /usr/src/freeswitch/html5/verto/verto_communicator/dist/* /var/www/html/vc/

# update password to match what in vars.xml
sed -i 's/1234/12345/' /var/www/html/vc/config.json

# enable secure web browsing
a2enmod ssl
a2ensite default-ssl.conf
systemctl restart apache2

# if using self-signed cert
# navigate to port https://[IP]:8082 accept cert first
# then navigate to site https://[IP]/vc
```