

## PlaySMS Install Guide for Debian 11

Submitted by powerpbx on Tue, 02/28/2023 - 10:00



PlaySMS is an open source SMS management system. It can be used as an SMS gateway, bulk SMS provider, personal messaging system, and for corporate and group communications.

It has built in gateway connectivity to various providers such as Twilio, Nexmo, BulkSMS, Clickatell, Infobip, RouteSMS etc. It also has a generic plugin that can be adapted to work with other providers.

Our changes from the original repository are shown at the following link.

[https://github.com/playsms/playsms/compare/master...powerpbx:playsms:php81\\_fix](https://github.com/playsms/playsms/compare/master...powerpbx:playsms:php81_fix)

[\(https://github.com/playsms/playsms/compare/master...powerpbx:playsms:php81\\_fix\)](https://github.com/playsms/playsms/compare/master...powerpbx:playsms:php81_fix)

We have created a [custom gateway for Telnyx](#)

<https://github.com/powerpbx/plugin-telnyx>.

### Tested using the following software:

- Debian 11 (Bullseye) x64 minimal install
- PlaySMS 1.5
- Apache 2.4
- PHP 8.1
- MariaDB 10

### Prerequisites

Verify locale is set to `C.UTF-8` or `en_US.UTF-8`.

```
locale
```

If it is not then set it now. You may also set your own UTF-8 locale.

```
# Select C.UTF-8 UTF-8
apt update && apt -y install locales && dpkg-reconfigure locales
```

Log out/in or close/open shell for changes to take effect.

## Install some basics

Ensure a basic server install with initial dependencies to start with.

```
apt update && apt -y upgrade
```

```
apt -y install nano git dbus sudo wget curl dirmngr openssl ntp
dnsutils mariadb-client mariadb-server postfix gettext apache2
```

## Postfix

If a postfix configuration wizard pops up you can select the default `Internet Site` and also the default mail name. These settings can be manually changed later in `/etc/postfix/main.cf`.

## Set Timezone

```
## FIND YOUR TIMEZONE
tzselect
```

```
## SET TIMEZONE EXAMPLE
timedatectl set-timezone America/Vancouver
```

```
systemctl restart rsyslog
timedatectl status
```

## PHP

### Install repository

```
# install this section one line at a time.
apt -y install gnupg2 apt-transport-https ca-certificates
software-properties-common
wget -O /etc/apt/trusted.gpg.d/php.gpg
https://packages.sury.org/php/apt.gpg
echo "deb https://packages.sury.org/php/ $(lsb_release -sc) main"
> /etc/apt/sources.list.d/php.list
```

### Install PHP v8.1

```
apt update && apt -y install php8.1 php8.1-opcache php8.1-cli  
php8.1-mysql php8.1-gd php8.1-mbstring php8.1-xml php8.1-curl  
php8.1-zip php8.1-fpm
```

```
update-alternatives --set php /usr/bin/php8.1
```

## Configure Apache

```
cat >> /etc/apache2/sites-available/playsms.conf << EOF  
<VirtualHost *:443>  
  
    ServerAdmin webmaster@localhost  
    ServerName playsms.somedomain.com  
    # ServerAlias www.playsms.somedomain.com  
    DocumentRoot /var/www/playsms  
  
    SSLEngine on  
    SSLCertificateFile      /etc/ssl/certs/ssl-cert-snakeoil.pem  
    SSLCertificateKeyFile   /etc/ssl/private/ssl-cert-snakeoil.key  
  
</VirtualHost>  
  
<Directory /var/www/playsms>  
    Options SymLinksIfOwnerMatch Indexes  
    DirectoryIndex index.php  
    Require all granted  
</Directory>  
  
<Directory /var/www/storage>  
    Require all denied  
</Directory>  
EOF
```

## Enable website

```
a2dissite 000-default.conf  
a2dissite default-ssl.conf  
a2ensite playsms.conf  
a2enmod proxy_fcgi ssl  
a2enconf php8.1-fpm  
systemctl restart php8.1-fpm  
systemctl restart apache2
```

## Install PlaySMS

This is using our fork which includes updates for PHP 8.1.

```
cd /usr/src  
git clone -b php81_fix https://github.com/powerpbx/playsms.git  
(https://github.com/powerpbx/playsms/tree/php81\_fix)_  
cd playsms
```

```
DBPASS=somepassword
```

```
mysqladmin create playsms
mysql -e "GRANT ALL PRIVILEGES ON playsms.* TO
'playsms'@'localhost' IDENTIFIED BY '${DBPASS}';"
mysql -e "flush privileges;"
```

```
SERVER_IP=$(ifconfig | sed -En 's/127.0.0.*//;s/.*/inet (addr:)?
(([0-9]*\.){3}[0-9]*).*\/\2/p' | head -n1 | cut -d " " -f1)
```

```
cat >> /usr/src/playsms/install.conf << EOF
ADMINPASSWORD="admin"
DBUSER="playsms"
DBPASS="${DBPASS}"
DBNAME="playsms"
DBHOST="localhost"
DBPORT="3306"
URLWEB="https://${SERVER_IP}"
PATHSRC="/usr/src/playsms"
PATHWEB="/var/www/playsms"
PATHBIN="/usr/local/bin"
PATHLOG="/var/log/playsms"
PATHSTR="/var/www/storage"
PATHSRC="$(pwd)"
EOF
```

Check configuration before running script and modify as necessary.

```
nano /usr/src/playsms/install.conf
```

Run PlaySMS install script and answer ☒ to all questions

```
/usr/src/playsms/install.sh
```

Create systemd file

```
cat >> /etc/systemd/system/playsms.service << EOF
[Unit]
Description=playsms
After=mariadb.service

[Service]
Type=oneshot
RemainAfterExit=yes
ExecStart=/usr/local/bin/playsmsd start
ExecStop=/usr/local/bin/playsmsd stop

User=www-data
Group=www-data

[Install]
WantedBy=multi-user.target
EOF
```

```
chmod 755 /usr/local/bin/playsmsd
systemctl daemon-reload
```

```
systemctl enable playsms
systemctl restart playsms
systemctl status playsms
```

## Post Install

### Set ownership and permissions

Run this any time there are any changes/moves/adds/upgrades or if experiencing problems.

```
# Set owner and group to www-data
chown -R www-data. /var/log/playsms /var/www

# Directory permissions to 755 (u=rwx,g=rx,o='rx')
find /var/log/playsms -type d -exec chmod 755 {} \;
find /var/www -type d -exec chmod 755 {} \;

# File permissions to 644 (u=rw,g=r,o=r)
find /var/log/playsms -type f -exec chmod 644 {} \;
find /var/www -type f -exec chmod 644 {} \;
```

### Firewall

```
apt -y install firewallld
```

```
firewall-cmd --permanent --zone=public --add-service={http,https}
firewall-cmd --reload
firewall-cmd --list-all
```

### Lock down DB

```
mysql_secure_installation
```

Answer ☒ to everything.

### Login

browse to <https://x.x.x.x>

username:

password:

Browse to [My account > Preferences](#) and change password

## Optional

### Optimize PHP-FPM

```
sed -i "s/request_terminate_timeout = 0/request_terminate_timeout = 300/" /etc/php/8.1/fpm/pool.d/www.conf
sed -i "s/max_execution_time = 30/max_execution_time = 60/" /etc/php/8.1/fpm/php.ini
sed -i "s/upload_max_filesize = 2M/upload_max_filesize = 20M/" /etc/php/8.1/fpm/php.ini
sed -i "s/post_max_size = 8M/post_max_size = 20M/" /etc/php/8.1/fpm/php.ini
sed -i "s/memory_limit = 128M/memory_limit = 512M/" /etc/php/8.1/fpm/php.ini
```

```
systemctl restart php8.1-fpm
```

## Setup SSL Certificate

This assumes you already have some domain or subdomain pointed at the server IP address. For example, `playsms.somedomain.com`.

Edit the `playsms.conf` to remove the port 443 virtualhost and add a port 80 virtualhost. So the new `playsms.conf` should look like the following

```
cat >> /etc/apache2/sites-available/playsms.conf << EOF
<VirtualHost *:80>
ServerName playsms.somedomain.com
DocumentRoot /var/www/playsms
</VirtualHost>

<Directory /var/www/playsms>
Options SymLinksIfOwnerMatch Indexes
DirectoryIndex index.php
Require all granted
</Directory>

<Directory /var/www/storage>
Require all denied
</Directory>
EOF
```

```
systemctl reload apache2
```

## Install certbot and get letsencrypt certificate

```
apt install certbot python3-certbot-apache
certbot --apache -d playsms.somedomain.com
systemctl reload apache2
```

## Update the web url if necessary

```
nano /var/www/playsms/appsetup.php
```

```
$core_config['http_path']['base'] =  
'https://playsms.somedomain.com';
```

Test automatic renewal.

```
certbot renew --dry-run
```

Set up the automatic renewal routine to run weekly.

```
crontab -e
```

```
0 0 * * 0 root /usr/bin/certbot renew >/dev/null 2>&1
```

## Disable Captcha

Captcha can be disabled at

`storage/application/plugin/core/auth/config.php` .

## Adding Additional Gateways

Most gateways are not installed by default and are located in

`/usr/src/playsms/storage/application/plugin/gateway`

The generic gateway can be used as a basis for creating a new gateway for some other provider.

## Troubleshooting

To show all errors in `/var/log/apache2/error.log` , go to

`storage/custom/application/configs/config.php` and uncomment

```
error_reporting(E_ALL ^ (E_NOTICE | E_WARNING | E_DEPRECATED));
```

For verbose run time logging to `/var/log/playsms/playsms.log` ,  
change the following setting just below the above one.

```
$core_config['logstate'] = 4;
```

## Sections:

[Other \(/category/sections/install/other\)](/category/sections/install/other)



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**Giuseppe Di Resta**

3 days ago edited

Ok, found bug that retrieve only one contact from all list when you type 2 chars to find destinations phonebook number into send sms form:  
you have to change: "\$items=array\_unique(\$items);"  
into file: .../storage/application/plugin/core/phonebook/fn.php,  
into function:  
function phonebook\_hook\_webservices\_output(\$operation, \$requests, \$returns) {  
to:  
\$items = array\_unique(\$items, SORT\_REGULAR);  
  
into php 7.X you can omit "SORT\_REGULAR", while seems that into  
php 8.X you have to declare it, so if you search into all .php files of  
platsms project, you have to change all similar expressions, i.e.:  
\$arrayxxx=array\_unique(\$arrayxxx);  
to  
\$arrayxxx=array\_unique(\$arrayxxx, SORT\_REGULAR);  
to solve probable bugs on array search into web pages.  
ok, now really all works well!!!

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**powerpbx** Mod

➔ Giuseppe Di Resta

3 days ago

Thank you for the info.

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**Giuseppe Di Resta**

➔ powerpbx

3 days ago edited

Thanks. Today ported also playsms 1.4.6 to PHP 8.2,  
but its daemon (playsmsd) hosed in  
/home/playsms/bin/ folder wont start, and cannot  
check the error around... while of I force PHP 7.2 (I've  
installed both) the daemon works well, so seems to be  
related to php version in use....  
Any suggestion about?

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**Giuseppe Di Resta**

a month ago edited



to powerpbx:  
there is a really BIG BUG on 1.5.0 playsms version:  
when you compose message, and search for destination numbers/users,  
after typed 2 chars, only one name/phone, appear in list, while in playsms  
1.4.5 (there is 1.4.6 as last version on github) all works, and typing 2 or  
more chars, all phones or users that has inside those chars, are listed to  
be chosen... you can check!  
so, is better use 1.4.x version of playsms, also if is compatible only with  
php 7.x (I used PHP 7.2)  
see you!

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**Giuseppe Di Resta** → Giuseppe Di Resta

3 days ago edited

the bug fix is in my previous post! and...  
if someone asks if works also with php 8.2, yes, just tested, all  
seems to work!

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**Giuseppe Di Resta**

a month ago

@powerpbx

Do you think it will be possible to upgrade playsms for php 8.2??? and if  
yes, how to proceed?  
thanks.

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S

**S. FANKANY**

2 months ago

Hi all,

I have successfully setup playsms 1.5 on debian 11 and so far everything  
seems to work as expected except :  
- All received sms are kept in planned sms, i did make sure that my  
timezone is same in php.ini and in playsms user config  
- The daemon is working fine but the \_tblPlaysmsd table is empty which  
seems like no services are getting registered

Does anyone face the same issue before? any suggestions for  
troubleshooting this behavior

regards,  
SFK

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**Giuseppe Di Resta**

2 months ago

hi, installed and all seems to work, but no data was sent to smstools  
outgoing folder to send as sms. I added also ownership to www-data to all

outgoing folder to send as sms, I added also something to write data to the smstools folder but nothing appen, I see queques sms sver in playsms web page. what to do?!

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**powerpbx** Mod

→ Giuseppe Di Resta

2 months ago

You should be able to see errors in the logs if something is not working as it should.

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**Giuseppe Di Resta** → powerpbx

2 months ago edited

ok, with your playsms fixed for php 8.1 all seems to works now with smstools3, but:  
I've installed it as normal user and not as root user and theese are my configs:

```
# INSTALL DATA
# =====
ADMINPASSWORD="admin"
DBUSER="playsms"
DBPASS="MyOwnDBpassword"
DBNAME="playsms"
DBHOST="localhost"
DBPORT="3306"
URLWEB="http://IP_of_playsms_machine"
PATHSTR="/home/playsms/public_html/storage"
PATHSRC="/home/playsms/src/playSMS"
PATHWEB="/home/playsms/public_html"
PATHLIB="/home/playsms/lib"
PATHBIN="/home/playsms/bin"
PATHLOG="/home/playsms/log"
PATHCONF="/home/playsms/etc"
# END OF INSTALL DATA
# =====
```

then, only adjust this line in this file:  
/home/playsms/bin/playsmsd

from:

```
$PLAYSMS_WEB = "";
```

to:

```
$PLAYSMS_WEB = '/home/playsms/public_html';
```

restarted playsms service  
(sudo systemctl restart playsms)

and now I can see quequed\_sms,  
sent/delivered/received SMS from smstools Gateway!

so, all works, but maybe work well also if follow step by  
step your guide, I think only is to do:

```
set:
$PLAYSMS_WEB = '/var/www/playsms';
on
/usr/local/bin/playsmsd file....
```

and all will work, I'm pretty sure!  
thanks for fix and guide!

YES!!!!!! CONFIRM!!!!!! just installed following step  
by step your guide, all works!  
only, fix that line:

```
set:
$PLAYSMS_WEB = '/var/www/playsms';
on
/usr/local/bin/playsmsd file....
```

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**powerpbx** Mod

➔ Giuseppe Di Resta

2 months ago edited



