

PlaySMS Install Guide for Debian 10/11/12-Ubuntu 20/22/23

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 Europe/Rome

systemctl restart rsyslog

timedatectl status

PHP

FOR UBUNTU write:

LC_ALL=C.UTF-8 sudo add-apt-repository ppa:ondrej/php

For debian write:

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 (both systems, Ubuntu/Debian)

```
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

```
truncate -s 0 /etc/apache2/sites-enabled/000-default.conf
```

```
cat >> /etc/apache2/sites-enabled/000-default.conf << EOF  
<VirtualHost *:80>
```

```
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

```
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 https://github.com/pappicio/playsms\_php\_8.1\_fix
```

```
cd playsms_php_8.1_fix
```

here insert your strong password (somepassword)

```
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_php_8.1_fix/install.conf << EOF
```

```
ADMINPASSWORD="admin"
```

```
DBUSER="playsms"
```

```
DBPASS="${DBPASS}"
```

```
DBNAME="playsms"
```

```
DBHOST="localhost"
```

```
DBPORT="3306"
```

```
URLWEB="http://${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_php_8.1_fix/install.conf
```

Run PlaySMS install script and answer y to all questions

```
bash /usr/src/playsms_php_8.1_fix/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 (optional)

```
apt -y install firewalld
```

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

```
firewall-cmd --reload
```

```
firewall-cmd --list-all
```

Lock down DB

```
mysql_secure_installation
```

Answer Y to everything.

Login

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

username: **admin**

password: **admin**

Browse to My account > Preferences and change password

Optimize PHP-FPM (Optional)

```
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 (optional)

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

Install smstools and compile for debian 10/11/12 – Ubuntu 20/22/24

apt-get install build-essential libusb-1.0 libusb-1.0-0-dev build-essential manpages-dev

sudo apt-get update

cd /tmp

git clone --depth=1 <https://github.com/pappicio/smstools3>

cd smstools3

make

make install

systemctl restart sms3

you have installed smstools3 on system, now configure it by edit config file, this is my own...

nano /etc/smsd.conf

```
devices = modem1
loglevel = 7
# logfiles
stats = /var/log/sms/stats
logfile = /var/log/sms/smsd.log
# Default queue directory = /var/spool/sms
outgoing = /var/spool/sms/outgoing
checked = /var/spool/sms/checked
failed = /var/spool/sms/failed
incoming = /var/spool/sms/incoming
sent = /var/spool/sms/sent
delaytime = 2
errorsleeptime = 10
blocktime = 180
autosplit = 3
# Queue configurations
[queues]
modem1 = /var/spool/sms/modem1
[modem1]
device = /dev/ttyUSB3G
init = AT^CURC=0
###init2 = AT+CPMS="ME","ME","ME"
#pin = 1234
report = yes
incoming = yes
queues = modem1
# mode = new
smc = 393770001016
baudrate = 115200 ###19200
memory_start = 0
decode_unicode_text = yes
#cs_convert = yes
report_device_details = no
```

Persistent names for USB-serial devices in Linux (/dev/ttyUSBx -> /dev/custom-name)

Using the following command you will get all the info you need for attacked USB devices:

lsusb

and the list...

```
Bus 005 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 004 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 006 Device 003: ID 12d1:1003 Huawei Technologies Co., Ltd. E220 HSDPA Modem / E230/E270/E870
HSDPA/HSUPA Modem
Bus 006 Device 001: ID 1d6b:0001 Linux Foundation 1.1 root hub
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 007 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
```

We need 2 numbers: 12d1 and 1003

Now check the 3G modem relative USB PORT

dmesg | grep ttyUSB

this is the result:

```
[ 22.734085] usb 6-1: GSM modem (1-port) converter now attached to ttyUSB0
[ 22.736402] usb 6-1: GSM modem (1-port) converter now attached to ttyUSB1
[ 43.266908] option1 ttyUSB0: GSM modem (1-port) converter now disconnected from ttyUSB0
[ 43.267196] option1 ttyUSB1: GSM modem (1-port) converter now disconnected from ttyUSB1
[ 43.690353] usb 6-1: GSM modem (1-port) converter now attached to ttyUSB0
[ 43.714377] usb 6-1: GSM modem (1-port) converter now attached to ttyUSB1
```

We choice **ttyUSB1**, so get some info about:

udevadm info --name=/dev/ttyUSB1 --attribute-walk

(all infos about...)

Create a file /etc/udev/rules.d/99-usb-serial.rules (yes you'll need root rights) with something like this line in it:

nano /etc/udev/rules.d/99-usb-serial.rules

and write inside:

SUBSYSTEM=="tty", ATTRS{idVendor}=="12d1", ATTRS{idProduct}=="1003", SYMLINK += "ttyUSB3G"

with, of course, your values for idVendor, idProduct and the symlink. You may need to add ATTR{serial}==blahblah to make it unique.

Add a similar line for each device you want a symlink for.

Note the comma's to separate each item. Forget one, and your rule won't work.

Now load the new rule.

Rebooting is the crass way, this is much more elegant:

sudo udevadm control --reload-rules && sudo udevadm trigger

Finally, test it. Three useful commands:

ls -l /dev/ttyUSB3G

will give something like:

lrwxrwxrwx 1 root root 7 Jan 17 21:48 /dev/ttyUSB3G -> ttyUSB1

ls -l /dev/ttyUSB1

Will give something similar to:

crw-rw---T 1 root dialout 188, 1 Jan 17 21:48 /dev/ttyUSB1

Note the ownerships and group memberships. Software will have to be aware of this, chown and chgrp may come in handy. But that's a different subject.

And that is it. You will not run again in this problem, even if the machine has started or even if you have re-connected the cables in different ports.

Install Adminer project homepage

Newer versions are offered here, such as 4.2.1.

sudo mkdir /usr/share/adminer

sudo wget "http://www.adminer.org/latest.php" -O /usr/share/adminer/latest.php

sudo ln -s /usr/share/adminer/latest.php /usr/share/adminer/adminer.php

echo "Alias /adminer /usr/share/adminer/adminer.php" | sudo tee /etc/apache2/conf-available/adminer.conf

sudo a2enconf adminer.conf

Once the installation completes, restart Apache.

sudo service apache2 restart

At this point, the setup is complete. You can access Adminer at either of the following addresses.

http://[SERVER_IP]/adminer

or:

http://[SERVER_IP]/adminer.php