Be your own TPoS-Merchant

29th April 2018

Wallet: 1.0.8

VPS: Ubuntu 16.04 x64

Coldwallet: Windows 10 x64







Index

| D | isclaimer | 3 |
|----|--|----|
| R | ent a VPS-Server | 4 |
| S | et up your VPS-Server | 5 |
| | Step 1) Log into your VPS with PuTTY | 5 |
| | Step 2) Set up a super-do user | 6 |
| | Step 3) Update and upgrade your VPS | 6 |
| | Step 4) Install a virtual enviroment | 7 |
| | Step 5) Create a swapfile | 7 |
| | Step 6) Mount your swapfile | 8 |
| | Step 7) Disable root login to protect your VPS | 8 |
| | Step 8) Restart your VPS | 9 |
| | Step 9) Login your VPS and switch back to root | 9 |
| | Command summary: | 10 |
| lr | nstall xsn-core at your VPS | 11 |
| | Step 1) Create an empty directory and download the wallet | 11 |
| | Step 2) Unzip the downloaded files | 12 |
| | Step 3) Move your xsn-files to a secure place, change their permissions and clean up | 12 |
| | Step 4) Edit your xsn.conf file | 13 |
| | Step 5) Start your xsn-daemon | 13 |
| | Command summary | 14 |
| S | et up your own TPoS-Contract at your VPS | 15 |
| | Step 1) At your VPS: create a merchant address | 15 |
| | Step 2) At your cold wallet: setup a tpos contract | 15 |
| | Step 3) At your VPS: show the privat key of the merchant address | 16 |
| | Step 4) At your VPS: show your tpos contract | 16 |
| | Step 5) At your VPS: edit the merchantnode.conf | 16 |
| | Step 6) At your VPS: edit the xsn.conf | 17 |
| | Step 7) At your VPS: restart your server | 17 |
| | Step 8) At your VPS: start the merchantnode | 17 |
| | Step 9) At your VPS: show the merchantnode config | 18 |
| | Step 10) At your VPS: start the tpos contract | 18 |
| | Command summary | 19 |





Disclaimer

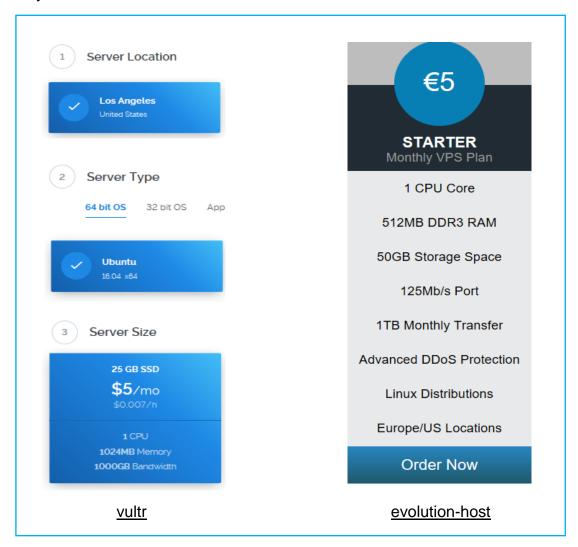
- #1 This guide only works with xsn-wallet V1.0.6 +.
- #2 This guide works for nearly every Linux distribution at your VPS.
- #3 This guide works for nearly every Windows, Linux or iOS at your local PC.
- #4 You need a SSH telnet client like PuTTY.
- #5 You need one static IPv4 for every TPoS-Contract your VPS will host.
- #6 If you dont have a VPS, you can rent a VPS at Vultr or evolution-host.
- #7 Every IP, private key, public key and txid I used in this guide were only created and used for this guide. They never have been hot and are already destroyed.



Page 3 | 19

Rent a VPS-Server

For setting up a TPoS-Merchant VPS with only one IPv4, the hardware requirements are very low.

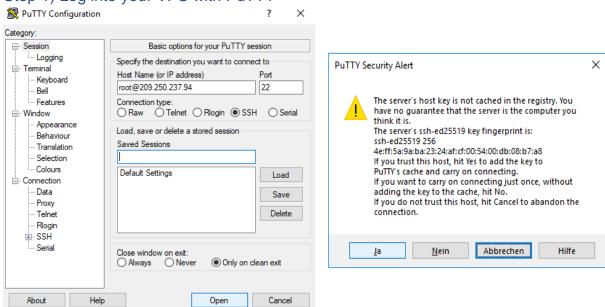




Page 4 | 19 STAKENET

Set up your VPS-Server

Step 1) Log into your VPS with PuTTY



Login your VPS with PuTTY: Root@"your.vps.merchant.ip". If this is the first time, you login your VPS, you have to accept and add the servers SSH-Key. Just press yes.

```
Using username "root".
root@209.250.237.94's password:
Welcome to Ubuntu 16.04.3 LTS (GNU/Linux 4.4.0-109-generic x86_64)

* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage

117 packages can be updated.
49 updates are security updates.

Last login: Sun Apr 29 17:55:45 2018 from 92.210.163.134
root@be_your_own_TPoS-Merchant_Guide:~#
```

If this is the first time you use a linux bash don't be confused. You never see your password when writing in a linux OS.

Tipp: If you use Vultr or evolution-host, you can copy your password at their homepage and past it into linux with a right-klick.



Donation:

Page 5 | 19 STAKENET

Step 2) Set up a super-do user

```
root@be_your_own_TPoS-Merchant_Guide: ~
                                                                          П
                                                                                X
root@be_your_own TPoS-Merchant Guide:~# adduser xsn tpos guide
Adding user `xsn_tpos_guide' ...
Adding new group `xsn_tpos_guide' (1001) ...
Adding new user `xsn_tpos_guide' (1001) with group `xsn_tpos_guide' ...
Creating home directory `/home/xsn_tpos_guide' ...
Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for xsn tpos guide
Enter the new value, or press ENTER for the default
        Full Name []:
        Room Number []:
        Work Phone []:
        Home Phone []:
        Other []:
Is the information correct? [Y/n] Y
root@be your own TPoS-Merchant Guide:~# usermod -aG sudo xsn tpos guide
root@be your own TPoS-Merchant Guide:~#
```

Commands: adduser "your_user_name"

usermod -aG sudo "your user name"

Step 3) Update and upgrade your VPS

```
root@be_your_own_TPoS-Merchant_Guide: ~
                                                                         X
root@be your own TPoS-Merchant Guide:~# apt-get update
Hit:l http://security.ubuntu.com/ubuntu xenial-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu xenial InRelease
Hit:3 http://archive.ubuntu.com/ubuntu xenial-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu xenial-backports InRelease
Reading package lists... Done
root@be_your_own_TPoS-Merchant_Guide:~# apt-get upgrade
Reading package lists... Done
Building dependency tree
Reading state information... Done
Calculating upgrade... Done
The following packages have been kept back:
 linux-generic linux-headers-generic linux-image-generic
The following packages will be upgraded:
  apparmor apport apt apt-transport-https apt-utils base-files bind9-host
  bsdutils cloud-guest-utils cloud-initramfs-copymods
  cloud-initramfs-dyn-netconf curl distro-info-data dnsutils dpkg
  friendly-recovery gcc-5-base grub-common grub-legacy-ec2 grub-pc grub-pc-bin
  grub2-common hdparm ifupdown initramfs-tools initramfs-tools-bin
  initramfs-tools-core iproute2 isc-dhcp-client isc-dhcp-common
```

Commands: apt-get update apt-get upgrade

apt dist-upgrade



Donation:

Page 6 | 19 STAKENET

Step 4) Install a virtual enviroment

```
root@be_your_own_TPoS-Merchant_Guide: ~
                                                                           \times
Setting up python (2.7.12-1~16.04) ...
Setting up pv (1.6.0-1) ...
Setting up python-pip-whl (8.1.1-2ubuntu0.4) ...
Setting up python3-virtualenv (15.0.1+ds-3ubuntul) ...
Setting up unzip (6.0-20ubuntul) ...
Setting up virtualenv (15.0.1+ds-3ubuntul) ...
root@be your own TPoS-Merchant Guide:~# ufw allow ssh/tcp && ufw limit ssh/tcp &
& ufw allow 62583/tcp && ufw logging on && ufw enable
Rules updated
Rules updated (v6)
Rules updated
Rules updated (v6)
Rules updated
Rules updated (v6)
Logging enabled
Command may disrupt existing ssh connections. Proceed with operation (y|n)? y
Firewall is active and enabled on system startup
root@be_your_own_TPoS-Merchant_Guide:~#
```

Commands: apt install ufw python virtualenv git unzip pv

ufw allow ssh/tcp

ufw limit ssh/tcp

ufw allow 62583/tcp

ufw logging on

ufw enable

Step 5) Create a swapfile

```
root@be_your_own_TPoS-Merchant_Guide:~# fallocate -1 4G /swapfile && chmod 600 / swapfile && mkswap /swapfile && swapon /swapfile && mkswap /swapfile && swapon /swapfile Setting up swapspace version 1, size = 4 GiB (4294963200 bytes) no label, UUID=c675fbac-b05f-4776-8031-9eld8956f827 root@be_your_own_TPoS-Merchant_Guide:~#
```

Commands: fallocate -I 4G /swapfile

chmod 600 /swapfile

mkswap /swapfile

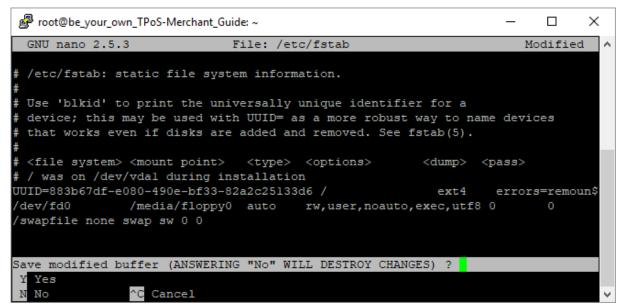
swapon /swapfile



Donation:

Page 7 | 19 STAKENET

Step 6) Mount your swapfile



Commands: nano /etc/fstab

/swapfile non swap sw 0 0

If this is the first time you use a linux bash don't be confused. The nano-command opens an editor. Navigate with the arrow keys to the bottom and write the /swapfile-command. To save your modifications, press ctrl+x, followed by y.

Step 7) Disable root login to protect your VPS

Commands: nano /etc/ssh/sshd_config

PermitRootLogin no

MaxAuthTries 5

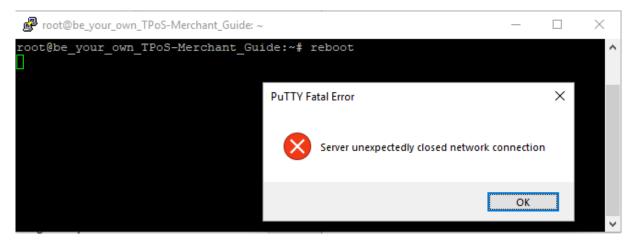
Navigate with the arrow keys to PermitRootLogin and change the yes into a no. Then add the MaxAuthTries line. To save your modifications, press ctrl+x, followed by y. From now on, you have to use the sudo user from Step 2) to login your VPS.

Author: jstarhead

XSN: XqwjrNq9wswhJLdcLTo2etpxNUStAdh6Zj BTC: 3JQEJPKeGt3M4XHzsZ2gsSgwZmCH8tonqD



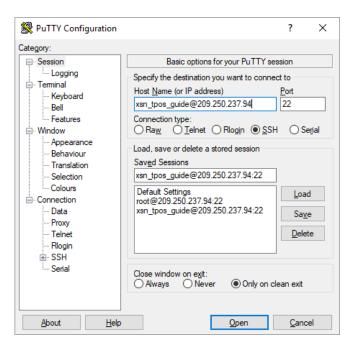
Step 8) Restart your VPS

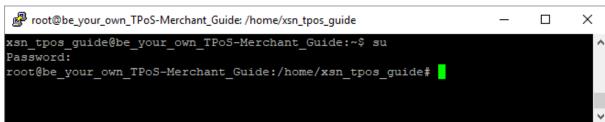


Commands: reboot

You have to restart your PuTTY as well.

Step 9) Login your VPS and switch back to root





Commands: su

With su (switch user) you directly switch into root. Just enter your root-password now.

Donation:





Command summary:

```
adduser "your user name"
usermod -aG sudo "your_user_name"
apt-get update
apt-get upgrade
apt dist-upgrade
apt install ufw python virtualenv git unzip pv
ufw allow ssh/tcp
ufw limit ssh/tcp
ufw allow 62583/tcp
ufw logging on
ufw enable
fallocate -I 4G /swapfile
chmod 600 /swapfile
mkswap /swapfile
swapon /swapfile
nano /etc/fstab
      /swapfile non swap sw 0 0
nano /etc/ssh/sshd_config
      PermitRootLogin no
      MaxAuthTries 5
reboot
su
```



Page 10 | 19

Install xsn-core at your VPS

Step 1) Create an empty directory and download the wallet

```
root@be_your_own_TPoS-Merchant_Guide: ~/xsncore
                                                                          ×
xsn tpos guide@be your own TPoS-Merchant Guide:~$ su
Password:
root@be your own TPoS-Merchant Guide:/home/xsn tpos guide# clear
root@be your own TPoS-Merchant Guide:/home/xsn tpos guide# cd ~ && mkdir xsncore
&& cd xsncore/
root@be_your_own_TPoS-Merchant_Guide:~/xsncore# wget https://github.com/X9Develo
pers/XSN/releases/download/v1.0.8/xsncore-1.0.8-linux64.tar.gz
--2018-04-29 18:57:42-- https://github.com/X9Developers/XSN/releases/download/v
1.0.8/xsncore-1.0.8-linux64.tar.gz
Resolving github.com (github.com)... 192.30.253.113, 192.30.253.112
Connecting to github.com (github.com)|192.30.253.113|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://github-production-release-asset-2e65be.s3.amazonaws.com/116008
128/a0d78ec2-44c6-11e8-9590-71bfac948ac0?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-
Credential=AKIAIWNJYAX4CSVEH53A%2F20180429%2Fus-east-1%2Fs3%2Faws4 request&X-Amz
-Date=20180429T185743Z&X-Amz-Expires=300&X-Amz-Signature=e7351e364bf1bf1c3e42963
8230fa3f16a9be9f76fb040cc9de5f4e92df543a1&X-Amz-SignedHeaders=host&actor id=0&re
sponse-content-disposition=attachment%3B%20filename%3Dxsncore-1.0.8-linux64.tar
gz&response-content-type=application%2Foctet-stream [following]
 -2018-04-29 18:57:43-- https://github-production-release-asset-2e65be.s3.amazo
```

Commands: cd ~

mkdir xsncore

cd xsncore/

wget "https://github_download_link"

At the moment you have to use this link:

https://github.com/X9Developers/XSN/releases/download/v1.0.8/xsncore-1.0.8-linux64.tar.gz.

If you want to install another version, you have to look for the link on github on your own.

Author: jstarhead Page 11 | 19

Step 2) Unzip the downloaded files

```
root@be_your_own_TPoS-Merchant_Guide: ~/xsncore
                                                                           П
                                                                                 ×
root@be your own TPoS-Merchant Guide:~/xsncore# tar xfvz xsncore-1.0.8-linux64.t ^
ar.gz
xsncore-1.0.8/
xsncore-1.0.8/bin/
xsncore-1.0.8/bin/xsn-cli
xsncore-1.0.8/bin/xsnd
xsncore-1.0.8/bin/xsn-qt
xsncore-1.0.8/bin/xsn-tx
xsncore-1.0.8/include/
xsncore-1.0.8/include/xsnconsensus.h
xsncore-1.0.8/lib/
xsncore-1.0.8/lib/libxsnconsensus.so
xsncore-1.0.8/lib/libxsnconsensus.so.0
xsncore-1.0.8/lib/libxsnconsensus.so.0.0.0
root@be your own TPoS-Merchant Guide:~/xsncore#
```

Commands: tar xfvz xsncore-1.0.8-linux64.tar.gz

Step 3) Move your xsn-files to a secure place, change their permissions and clean up

Commands: mkdir ~/.xsncore

cp xsncore-1.0.8/bin/xsnd ~/.xsncore/

cp xsncore-1.0.8/bin/xsn-cli ~/.xsncore/

chmod 777 ~/.xsncore/xsn*

rm xsncore-1.0.8-linux64.tar.gz

rm -r xsncore-1.0.8/

Keep in mind: If you downloaded another version of the wallet, your files might have another name. Example: wallet 1.0.6 file names were: xsncore-1.0.6*

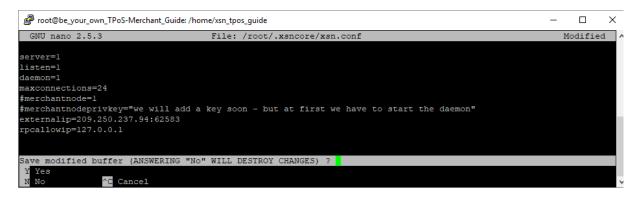


Donation:

Page 12 | 19



Step 4) Edit your xsn.conf file



Commands: nano ~/.xsncore/xsn.conf

rpcallowip=127.0.0.1

listen=1

server=1

daemon=1

maxconnections=24

externalip= your.vps.merchant.ip:62583

We will edit the xsn.conf in the next chapter, to upgrade your xsn-server to a merchantnode.

Step 5) Start your xsn-daemon

Commands: ~/.xsncore/xsnd



Donation:

Page 13 | 19 STAKENET

Command summary

cd ~

mkdir xsncore

cd xsncore/

wget "https://github_download_link"

tar xfvz xsncore-1.0.8-linux64.tar.gz

mkdir ~/.xsncore

cp xsncore-1.0.8/bin/xsnd ~/.xsncore/

cp xsncore-1.0.8/bin/xsn-cli ~/.xsncore/

chmod 777 ~/.xsncore/xsn*

rm xsncore-1.0.8-linux64.tar.gz

rm -r xsncore-1.0.8/

nano ~/.xsncore/xsn.conf

rpcallowip=127.0.0.1

listen=1

server=1

daemon=1

maxconnections=24

externalip= your.vps.merchant.ip:62583

Commands: ~/.xsncore/xsnd



Donation:



Set up your own TPoS-Contract at your VPS

Foreword: Every command is executed at your VPS. There will be only one step, you need to execute at your cold wallet. This is the only moment your cold-wallet needs to be online for a few seconds.

Step 1) At your VPS: create a merchant address

```
root@be your own TPoS-Merchant Guide: /home/xsn tpos guide
                                                                                               X
  ot@be_your_own_TPoS-Merchant_Guide:/home/xsn_tpos_guide# ~/.xsncore/xsn-cli getnewaddress
Xr44ZM8yTCEfbjrYx4cPj22cDPApxvjMim
root@be_your_own_TPoS-Merchant_Guide:/home/xsn_tpos_guide#
```

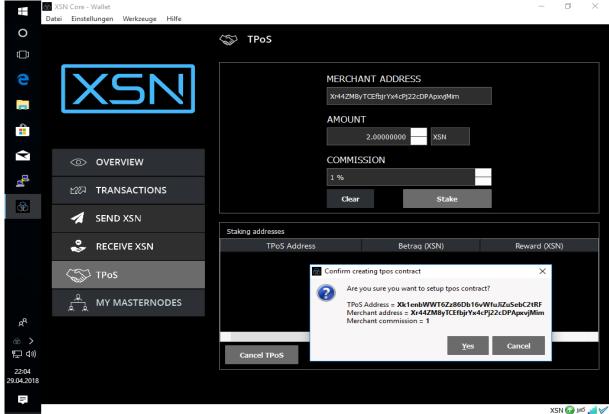
Commands: ~/.xsncore/xsn-cli getnewaddress

Save this new address at a local editor, like Notepad. You need it in Step 2) and 3)

Tipp: mark the address in the linux bash and paste it into a local notepad.



Step 2) At your cold wallet: setup a toos contract



Use the address form Step 1). Set the commission as low as possible, because you are your own merchant!



Donation:

Page 15 | 19

Step 3) At your VPS: show the privat key of the merchant address

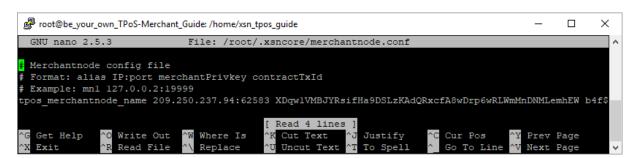
Commands: ~/.xsncore/xsn-cli dumpprivkey "getnewaddress result from Step 1)"

Step 4) At your VPS: show your tpos contract

Commands: ~/.xsncore/xsn-cli tposcontract list

Save the txid at a local editor, like Notepad. You need it in Step 5) and Step 10)

Step 5) At your VPS: edit the merchantnode.conf



Commands: nano ~/.xsncore/merchantnode.conf

name ip:port privatkey txid



Donation:

Page 16 | 19



Step 6) At your VPS: edit the xsn.conf



Commands: nano ~/.xsncore/xsn.conf

merchantnode=1

merchantnodeprivkey="dumpprivkey "getnewaddress" result"

Now we can add the privat key from Step 3) in the xsn.conf file

Step 7) At your VPS: restart your server

Commands: ~/.xsncore/xsn-cli stop

~/.xsncore/xsnd

Step 8) At your VPS: start the merchantnode

Commands: ~/.xsncore/xsn-cli merchantnode start-alias "merchantnode_name"



Donation:

Page 17 | 19



Step 9) At your VPS: show the merchantnode config

Commands: ~/.xsncore/xsn-cli merchantnode list-conf

After 15-30min the PRE_ENABLED status will switch into ENABLED.

Step 10) At your VPS: start the tpos contract

Commands: ~/.xsncore/xsn-cli setgenerate true 1 true "txid from step 4"

After your PRE_ENABLED status switch into ENABLED you can run these command. Without this command, your merchantnode will not start staking.

A u t h o r :
jstarhead

Page 18 | 19

STAKENET

Command summary

- ~/.xsncore/xsn-cli getnewaddress
- ~/.xsncore/xsn-cli dumpprivkey "getnewaddress result"
- ~/.xsncore/xsn-cli tposcontract list

nano ~/.xsncore/xsn.conf

merchantnode=1

merchantnodeprivkey="dumpprivkey "getnewaddress result"

- ~/.xsncore/xsn-cli stop
- ~/.xsncore/xsnd
- ~/.xsncore/xsn-cli merchantnode start-alias "tpos_merchantnode_name"
- ~/.xsncore/xsn-cli merchantnode list-conf
- ~/.xsncore/xsn-cli setgenerate true 1 true "txid"



XSN: XqwjrNq9wswhJLdcLTo2etpxNUStAdh6Zj

Page 19 | 19

Donation:

BTC: 3JQEJPKeGt3M4XHzsZ2gsSgwZmCH8tonqD