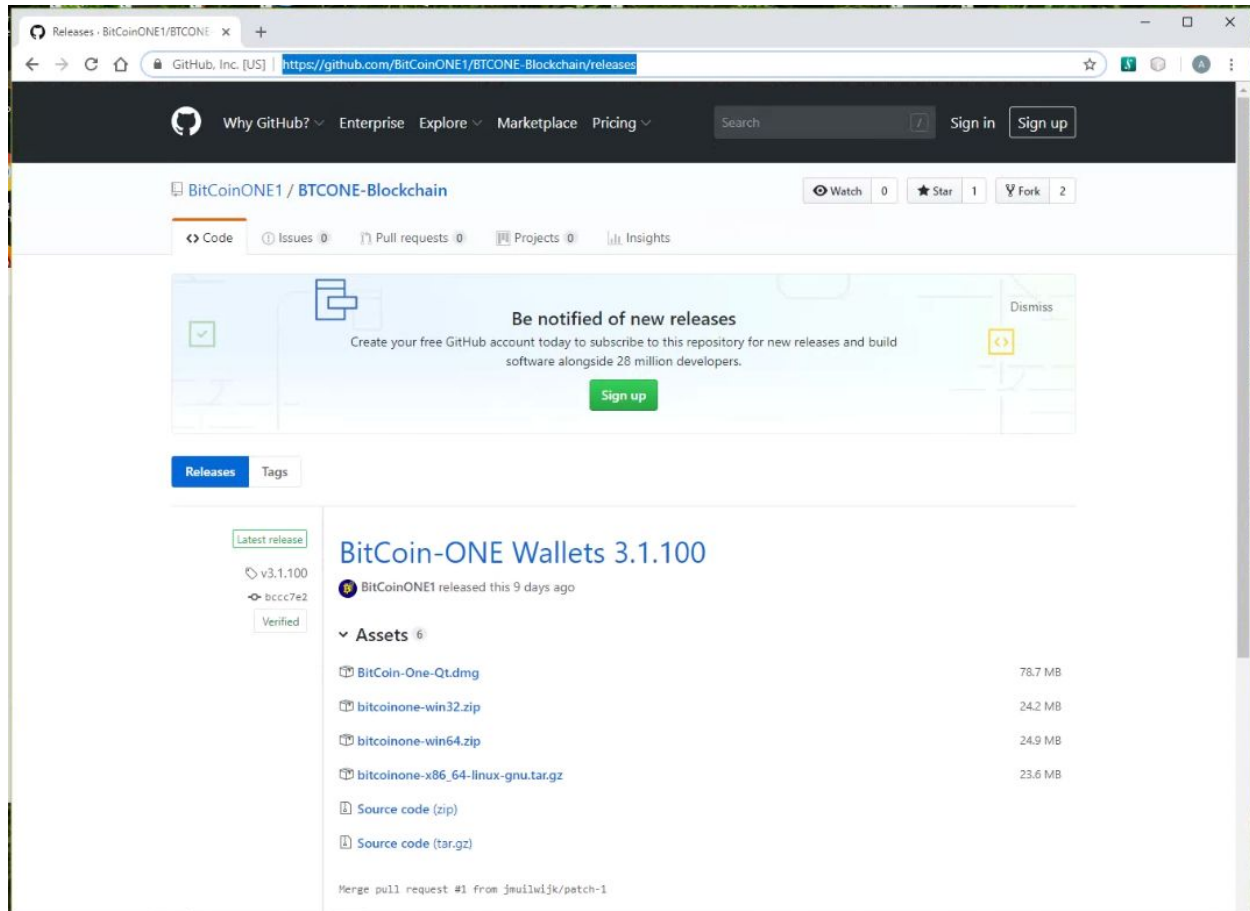


This guide will take you from initial BitCoin ONE wallet installation to running a hot/cold masternode on VPS to a brief description of how to set up multiple hot/cold masternodes.

Chapter 1: BitCoin ONE Windows desktop wallet installation

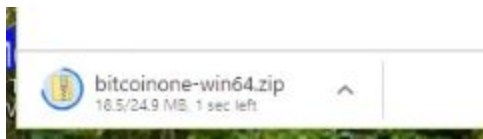
Step 1:

Download the latest wallet version from GitHub. This is the URL to BitCoin ONE's releases page: <https://github.com/BitCoinONE1/BTCONE-Blockchain/releases> This guide will be using the Windows 64bit wallet. Select the appropriate wallet for your PC.



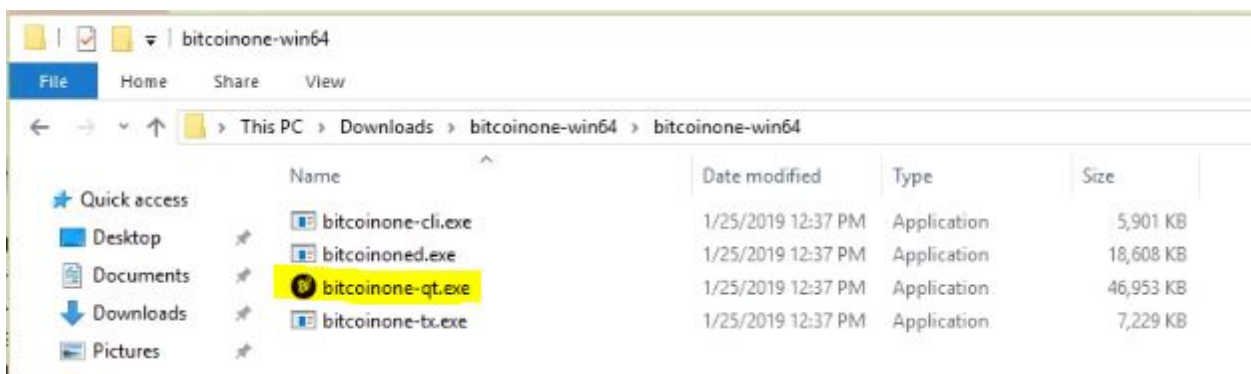
Step 2:

Click the link for the wallet version you wish to install to download the .zip file.



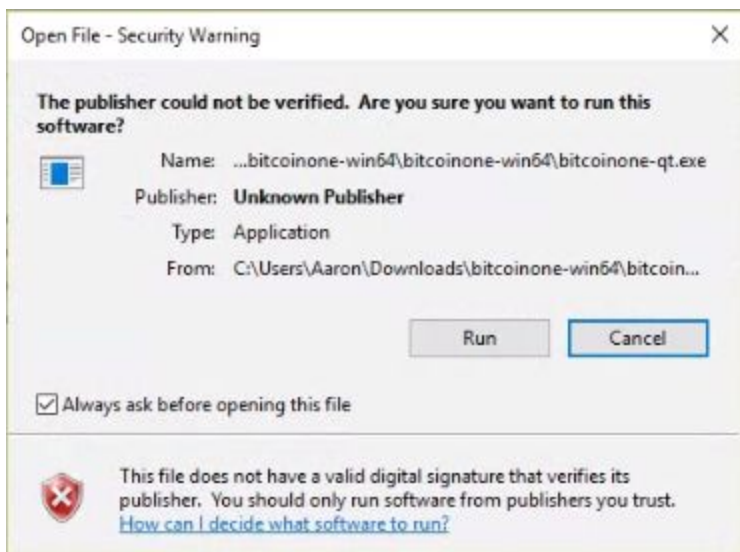
Step 3:

Extract the .zip file and doubleclick on bitcoinone-qt.exe



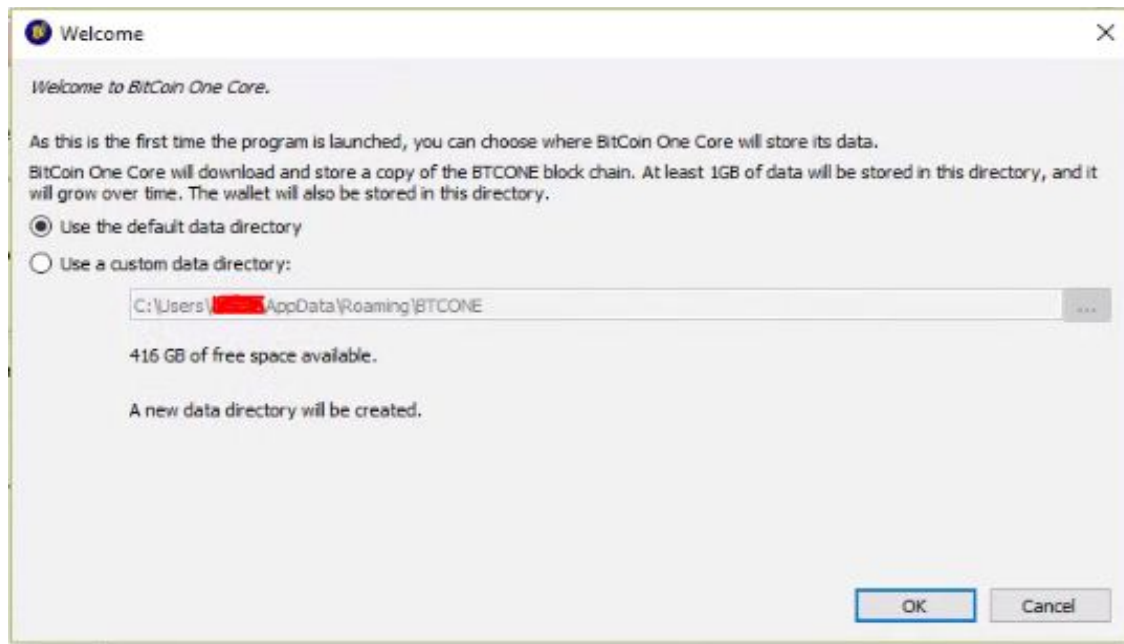
Step 4:

A security warning may pop-up. If so, select Run.



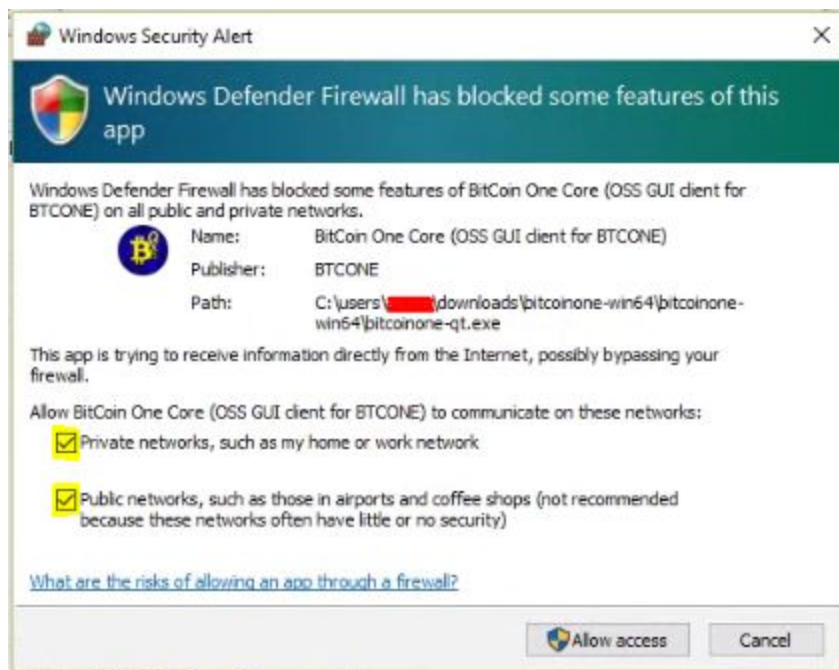
Step 5:

The Welcome window will pop up when the installation begins. Select “Use the default data directory” and click OK.



Step 6:

Windows Security Alert will pop up. In order for your Windows firewall to allow the wallet to communicate with the network, you need to select both choices and click Allow access.



Step 7:

The BitCoin ONE wallet will now open and begin connecting to the network and syncing the blockchain.



The progress bar at the bottom of the wallet tracks the status of your wallet's sync.



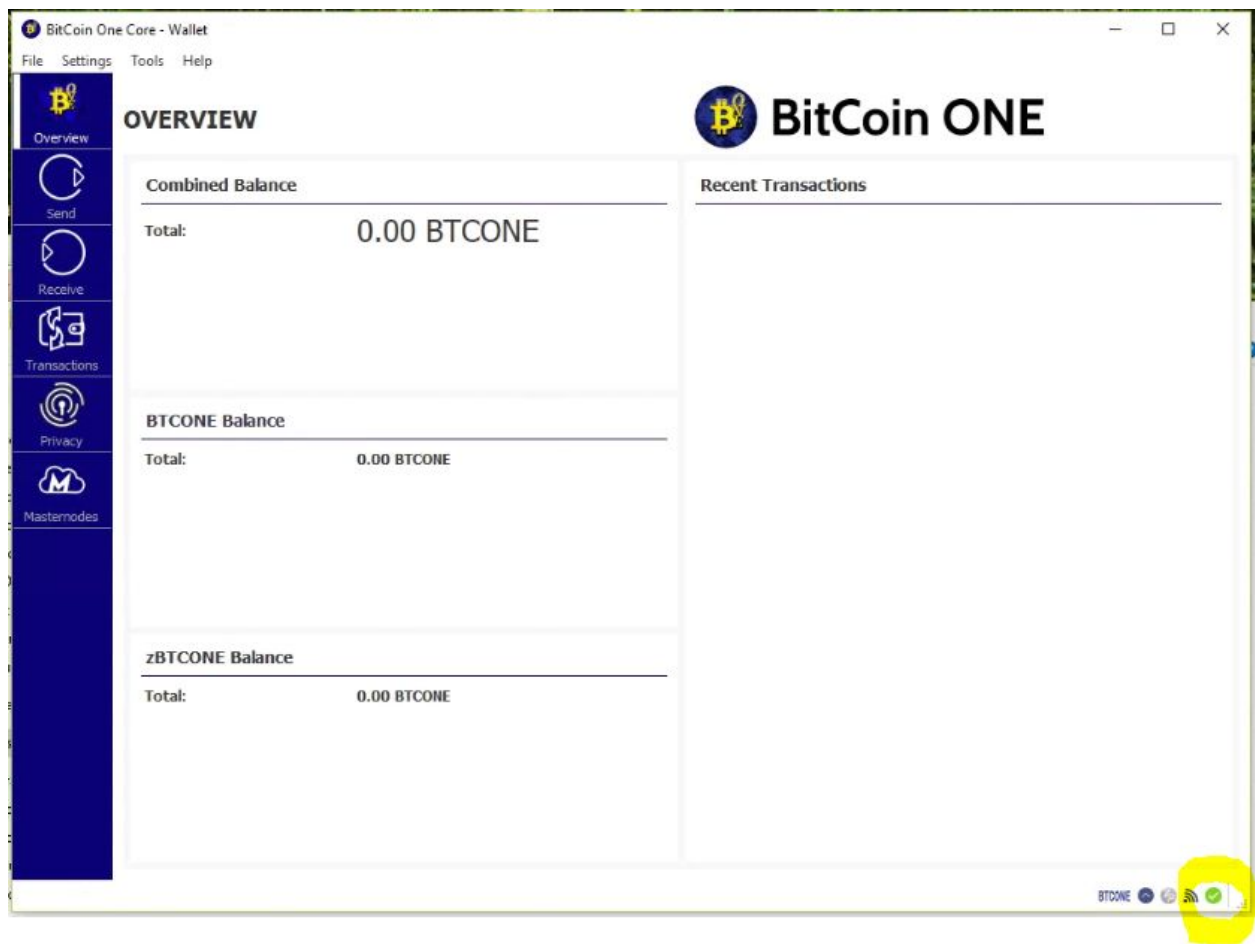
To fully sync your wallet the first time may take some time due to network connection, speed of your PC and other factors. If after time the progress bar seems to be “stuck” on a block, look on the bottom right of the wallet. If you have a red satellite dish symbol, your wallet is NOT connected to the network. This can be either your firewall, your internet connection, port blockage, corrupt wallet issues or more and is beyond the scope of this guide.



If you are connected to the network, this symbol will show at the bottom right of your wallet. Just be patient and allow the wallet to fully sync.



You will know your wallet is fully synced when the progress bar at the bottom goes away and you have a green checkmark at the bottom right of your wallet.



Chapter 2: Initial setup of local wallet for building a masternode

IMPORTANT!!!

MAKE SURE YOUR WALLET IS FULLY SYNCED BEFORE CONTINUING THE GUIDE!

Step 1:

Click on the Receive tab of your wallet.

Step 2:

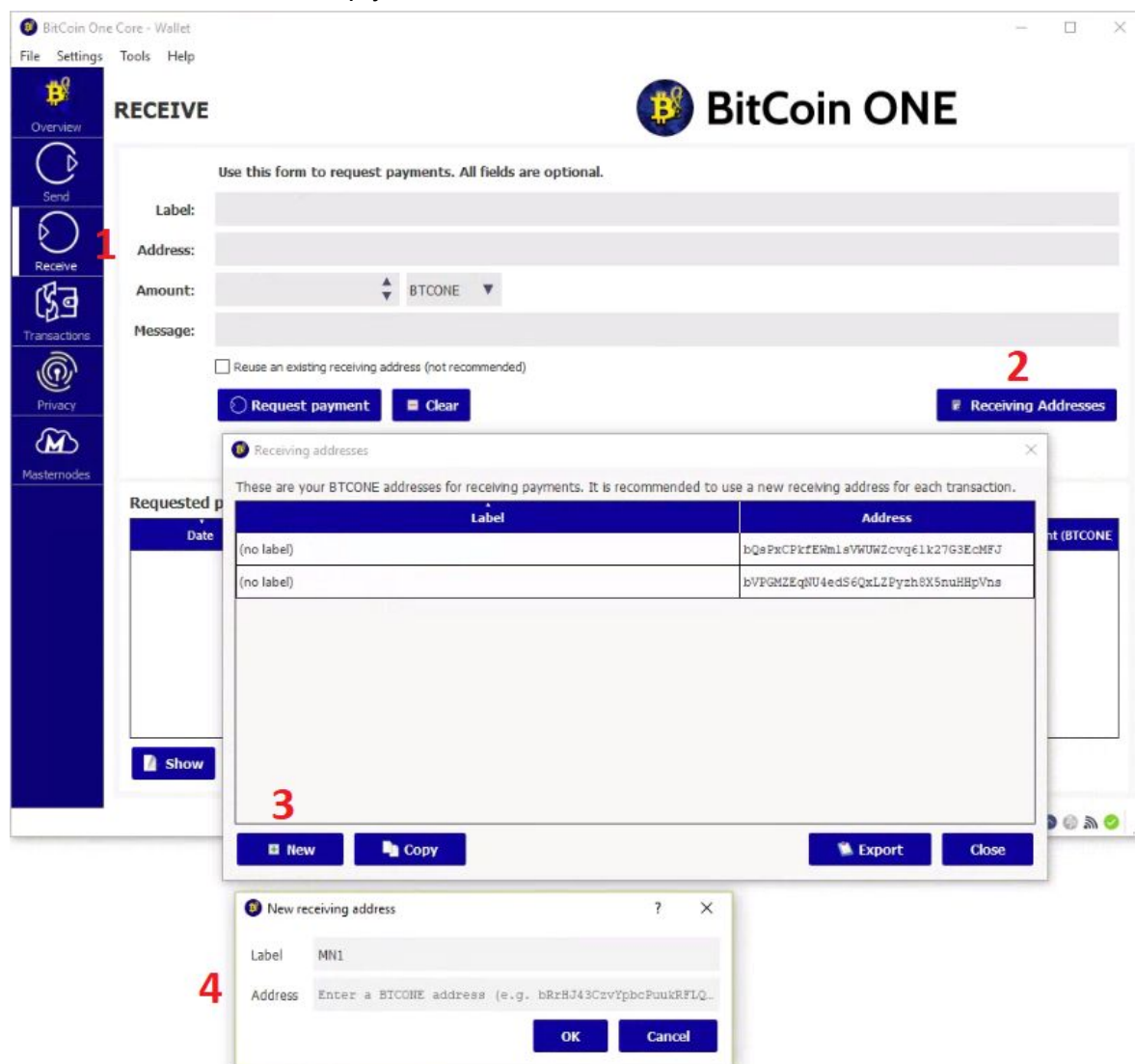
Click the Reciveing Addresses button. A new window will open.

Step 3:

In the new window, click the New button. Another window will open.

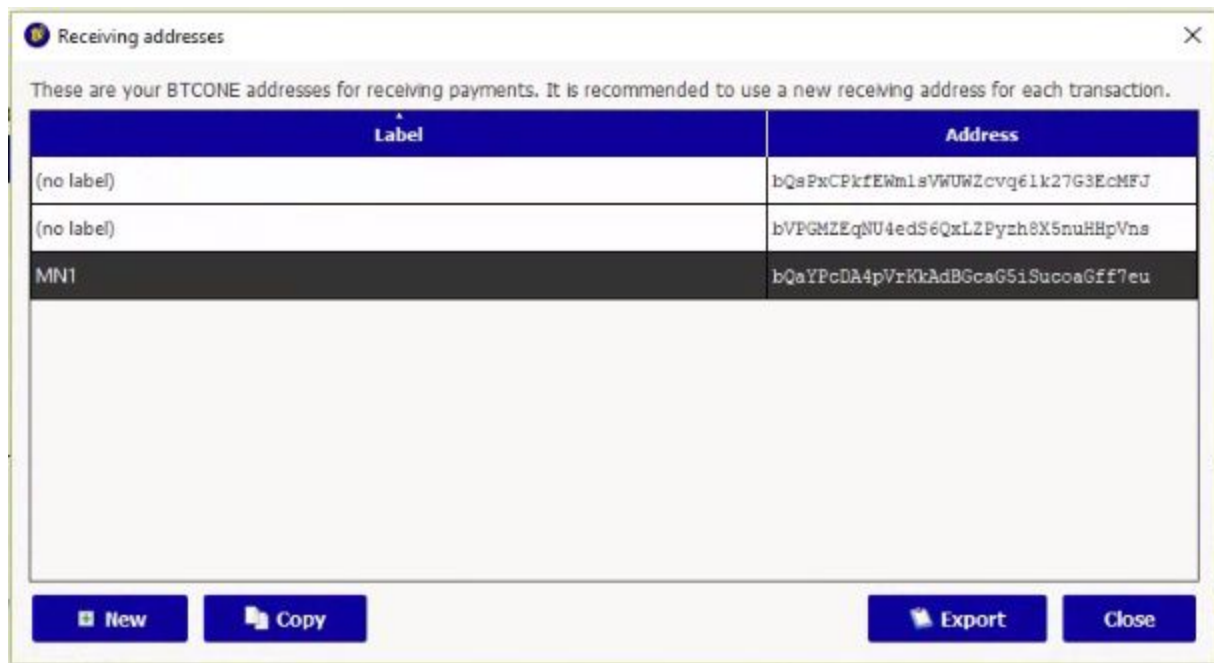
Step 4:

In the Label field, give this new address a name. I have chosen MN1, for Masternode 1. Leave the Address field empty. Click OK.

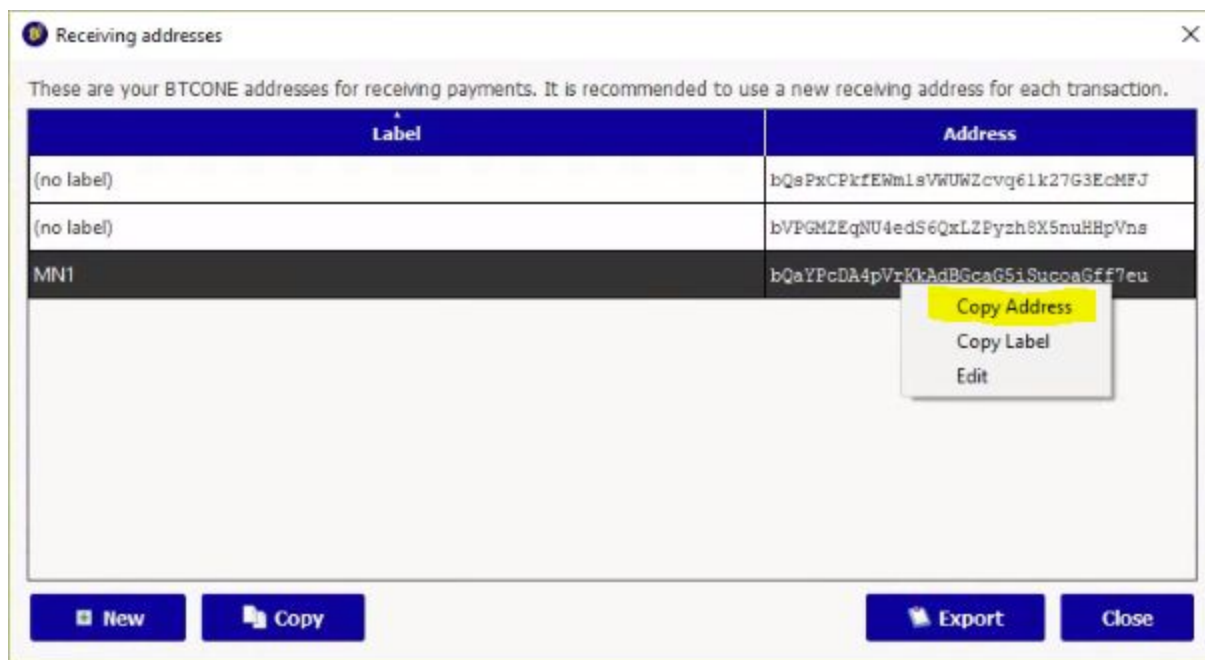


Step 5:

Your new address will now show in the Receiving addresses window.

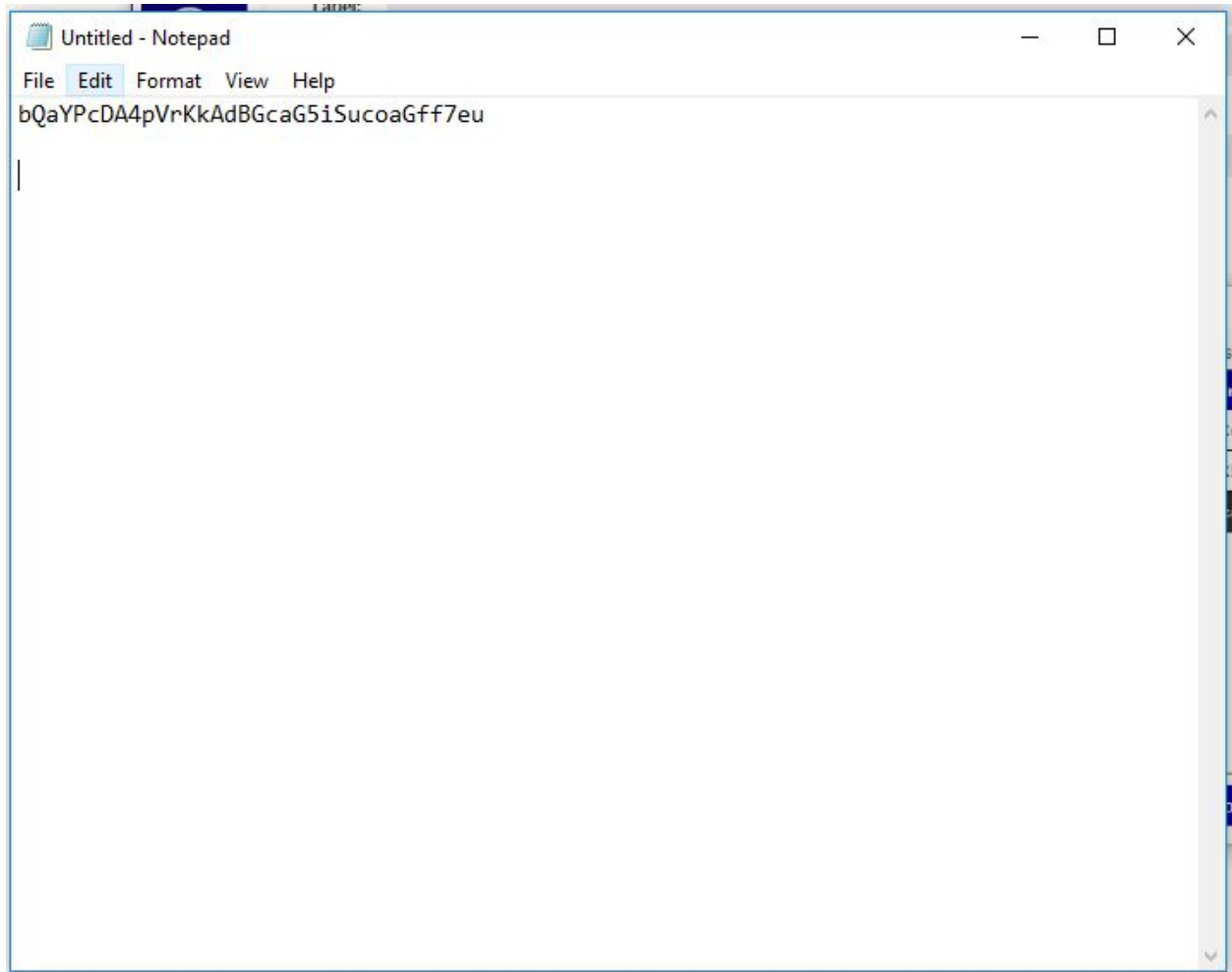


Right click on the new address and select Copy Address.



Step 6:

Open Notepad on your PC (or any similar program). Paste this new address there so that this info is easy to get again further in this guide.

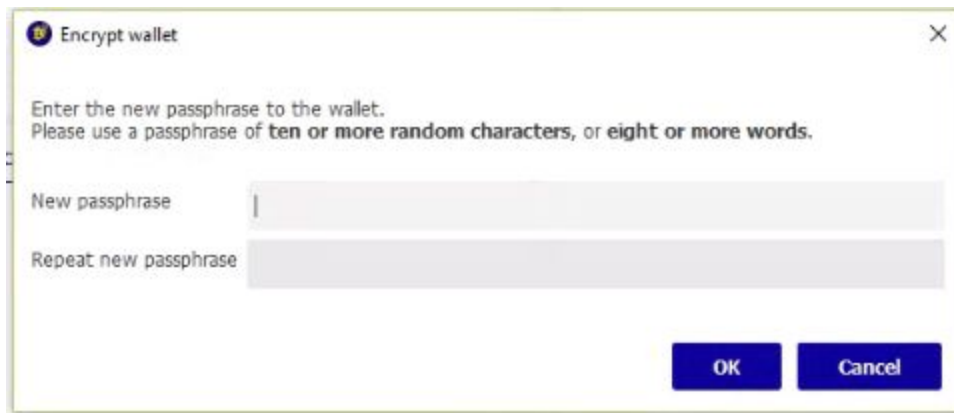


Step 7: OPTIONAL BUT RECOMMENDED

Back in your wallet, select Settings and chose Encrypt Wallet.



A new window will open. Enter a new passphrase which will be needed to unlock your wallet in the future. Click OK when done.



A warning will pop up. Select Yes.



Wait.... Depending on your computer, this may take up to a few minutes.

Once the encryption is complete this window will pop up. Select OK. The wallet will close after doing so.



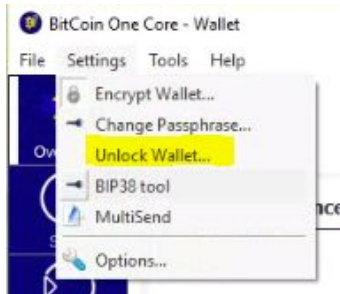
Restart the wallet by doubleclicking the bitcoinone-qt.exe file again.

Wait for it to load and resync again.

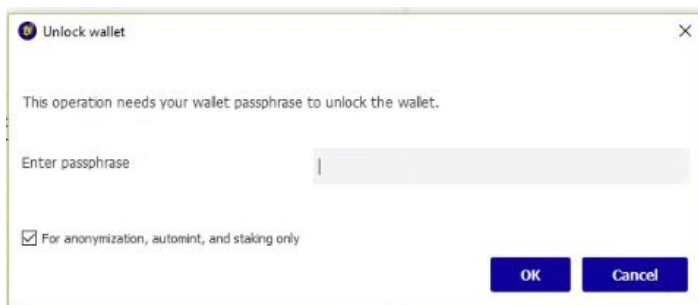
You will now see the lock symbol at the bottom right of the wallet.



To unlock the wallet, select Settings and chose Unlock Wallet.



A window will pop up. Enter your passphrase into it and select OK.

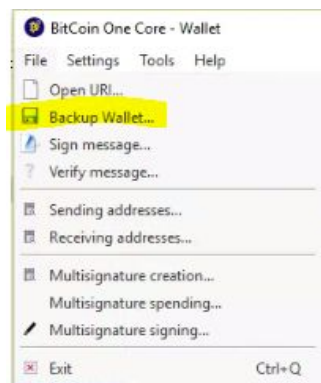


Once unlocked, the lock symbol will change to appear unlocked.

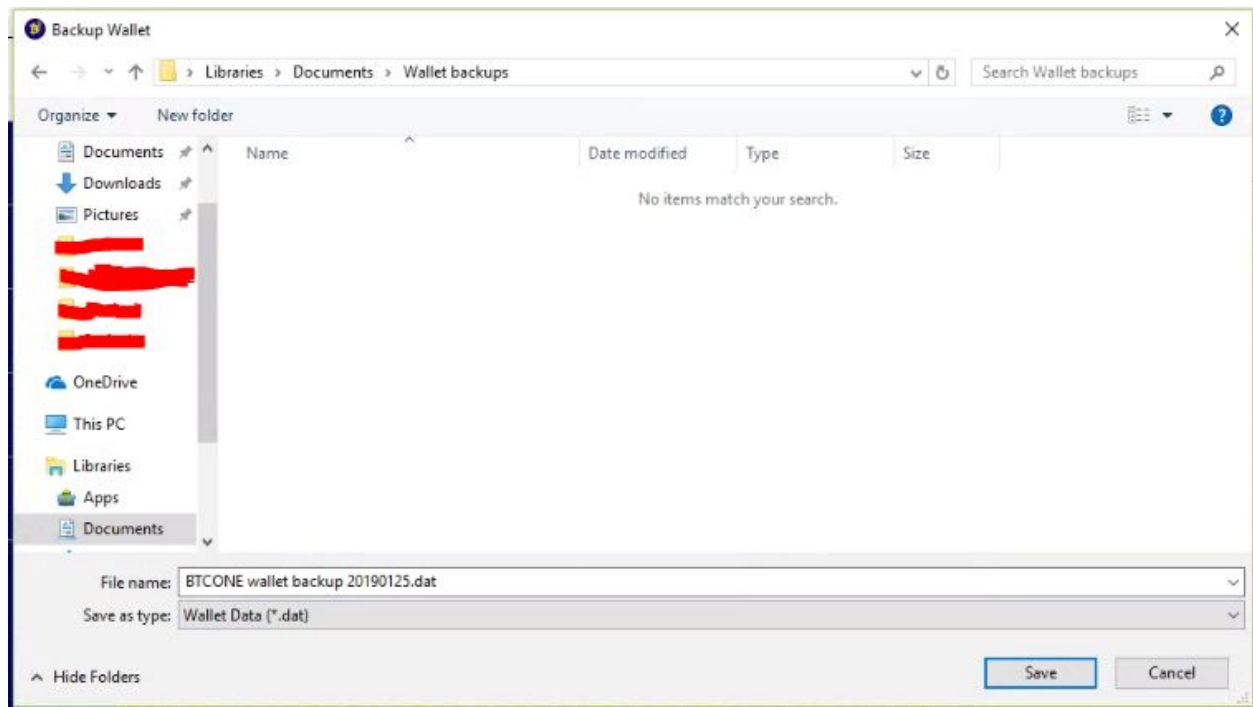


Step 8: OPTIONAL BUT RECOMMENDED

Now that your wallet is fully synced and encrypted, make a backup of your data by selecting File and choosing Backup Wallet.



A window will open where you can select the location and name of your backup file. Keep this file somewhere safe, multiple places if possible. If your wallet ever has any major issues, **THIS FILE IS THE ONLY WAY TO GET YOUR COINS BACK!**



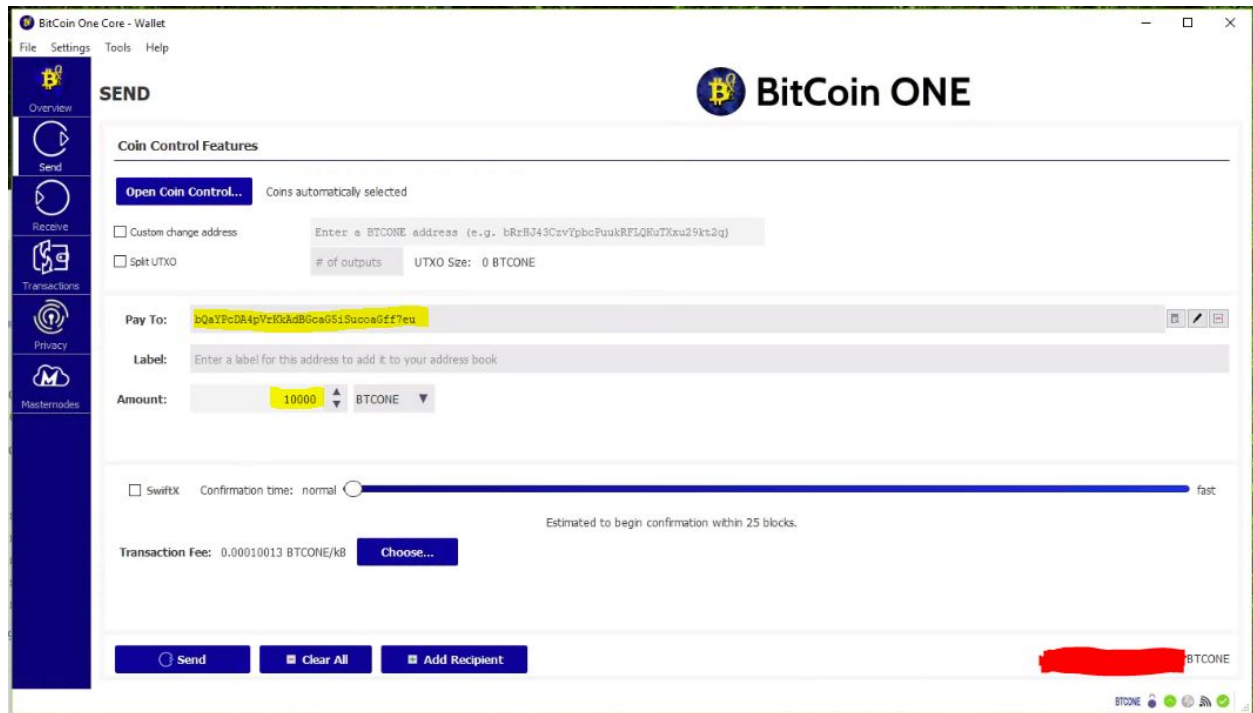
You should get a notification at the bottom of your screen letting you know that the backup was successful.



Step 9:

In order to set up a masternode, you need to have 10000 BTCONE held in collateral within your wallet. You need to send EXACTLY 10000 BTCONE in one, single transaction to the address you created in the previous steps.

To send the transaction from another BitCoin ONE wallet, go to that wallet's Send tab. Enter your new address into the Pay To field. Enter 10000 into the Amount Field. Click Send.



If the wallet is encrypted and lock, you will need to enter the passphrase to send coins.

A confirmation window will pop up. Double check the address and amount. When satisfied, click Yes.



Back in your new wallet, after a few seconds, you should the the transaction appear in the Recent Transactions list. Hovering over the transaction will reveal more info.

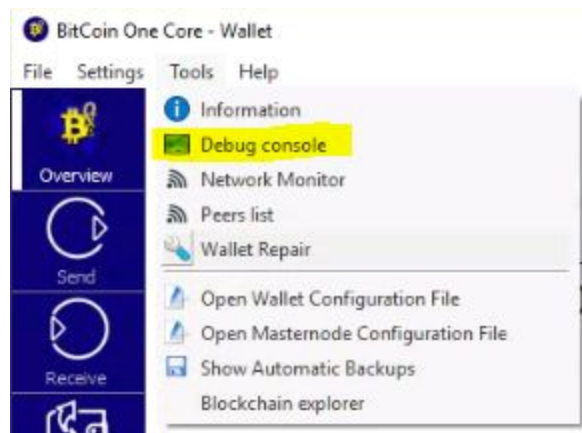


Wait until that transaction has at least 1 confirmation before proceeding to the next step.



Step 10:

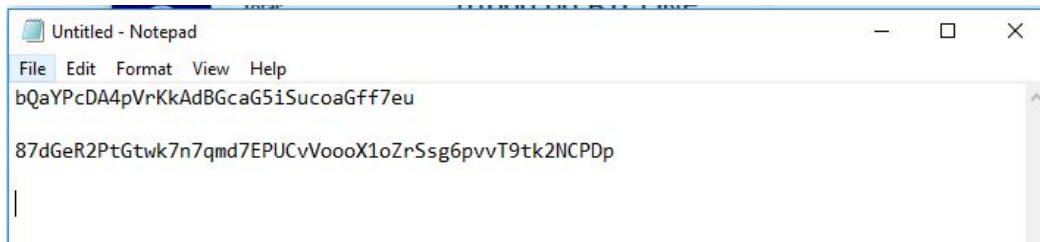
Click on Tools and select Debug console.



A new window will pop up. In the field at the bottom, enter the command:
masternode genkey
and hit enter.



Copy the code that is output and paste it into notepad for use later.



```
Untitled - Notepad
File Edit Format View Help
bQaYPcDA4pVrKkAdBGcaG5iSucoaGff7eu

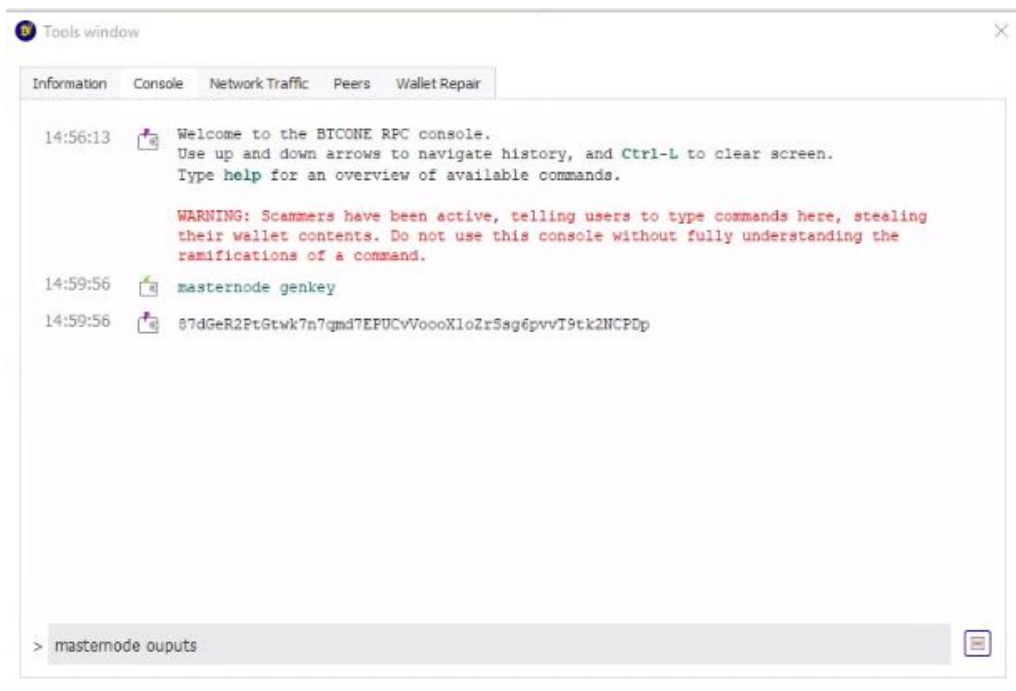
87dGeR2PtGtwk7n7qmd7EPUCvVoooX1oZrSsg6pvvT9tk2NCPDp
|
```

Step 11:

Still in the Debug Console, enter the command:

masternode outputs

and hit enter.



```
Tools window
Information Console Network Traffic Peers Wallet Repair

14:56:13 Welcome to the BITCOIN RPC console.
Use up and down arrows to navigate history, and Ctrl-L to clear screen.
Type help for an overview of available commands.

WARNING: Scammers have been active, telling users to type commands here, stealing
their wallet contents. Do not use this console without fully understanding the
ramifications of a command.

14:59:56 masternode genkey
14:59:56 87dGeR2PtGtwk7n7qmd7EPUCvVoooX1oZrSsg6pvvT9tk2NCPDp

> masternode outputs
```



```
15:02:44 masternode outputs
15:02:44 [
  {
    "txhash": "84527a0debb76ba6a38561c8e292a59a449fc74afa65fd5d4961500f409872a8",
    "outputidx": 0
  }
]
```

Copy the output and paste it into notepad for use later.

```
Untitled - Notepad
File Edit Format View Help
bQaYPcDA4pVrKkAdBGcaG5iSucoaGff7eu

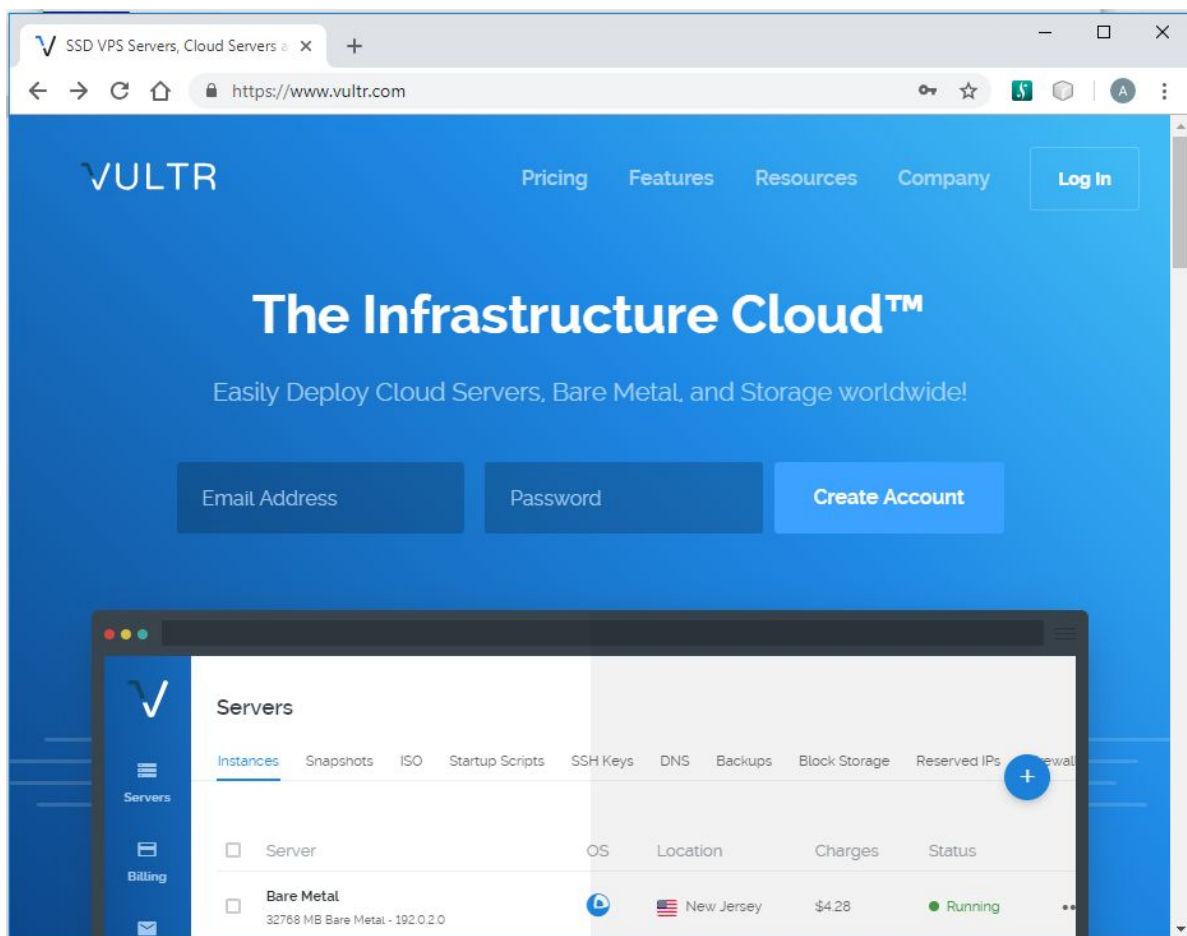
87dGeR2PtGtwk7n7qmd7EPUCvVoooX1oZrSsg6pvvT9tk2NCPDp

"txhash": "84527a0debb76ba6a38561c8e292a59a449fc74afa65fd5d4961500f409872a8",
"outputidx": 0
```

Chapter 3: Vultr Account Creation

Step 1:

Open your internet browser and go to <https://www.vultr.com/>

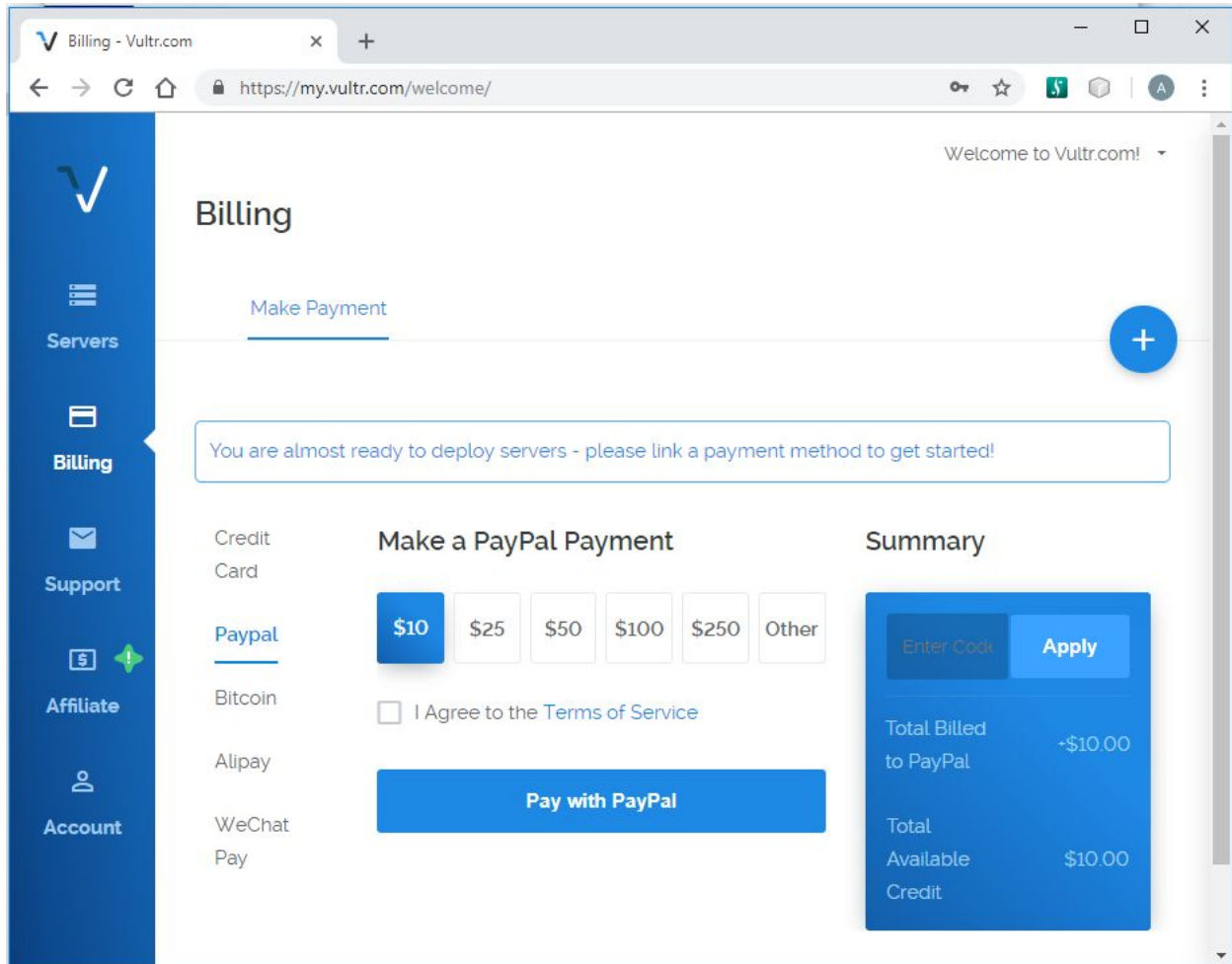


Step 2:

Enter your email address and a password into the fields and click the Create Account button.

Step 3:

You will need to fund your account in order to set up a VPS. Select your payment method and desired amount.



The screenshot shows the Vultr Billing page in a web browser. The browser's address bar displays "https://my.vultr.com/welcome/". The page has a blue sidebar on the left with navigation links: Servers, Billing (highlighted), Support, Affiliate, and Account. The main content area is titled "Billing" and includes a "Make Payment" link. A message box states: "You are almost ready to deploy servers - please link a payment method to get started!". Below this, there are three sections: "Credit Card", "Make a PayPal Payment", and "Summary". The "Make a PayPal Payment" section includes a "Paypal" link, a "Pay with PayPal" button, and a "Pay with PayPal" button. The "Summary" section shows a table with the following data:

Summary	
Total Billed to PayPal	-\$10.00
Total Available Credit	\$10.00

Chapter 4: VPS deployment

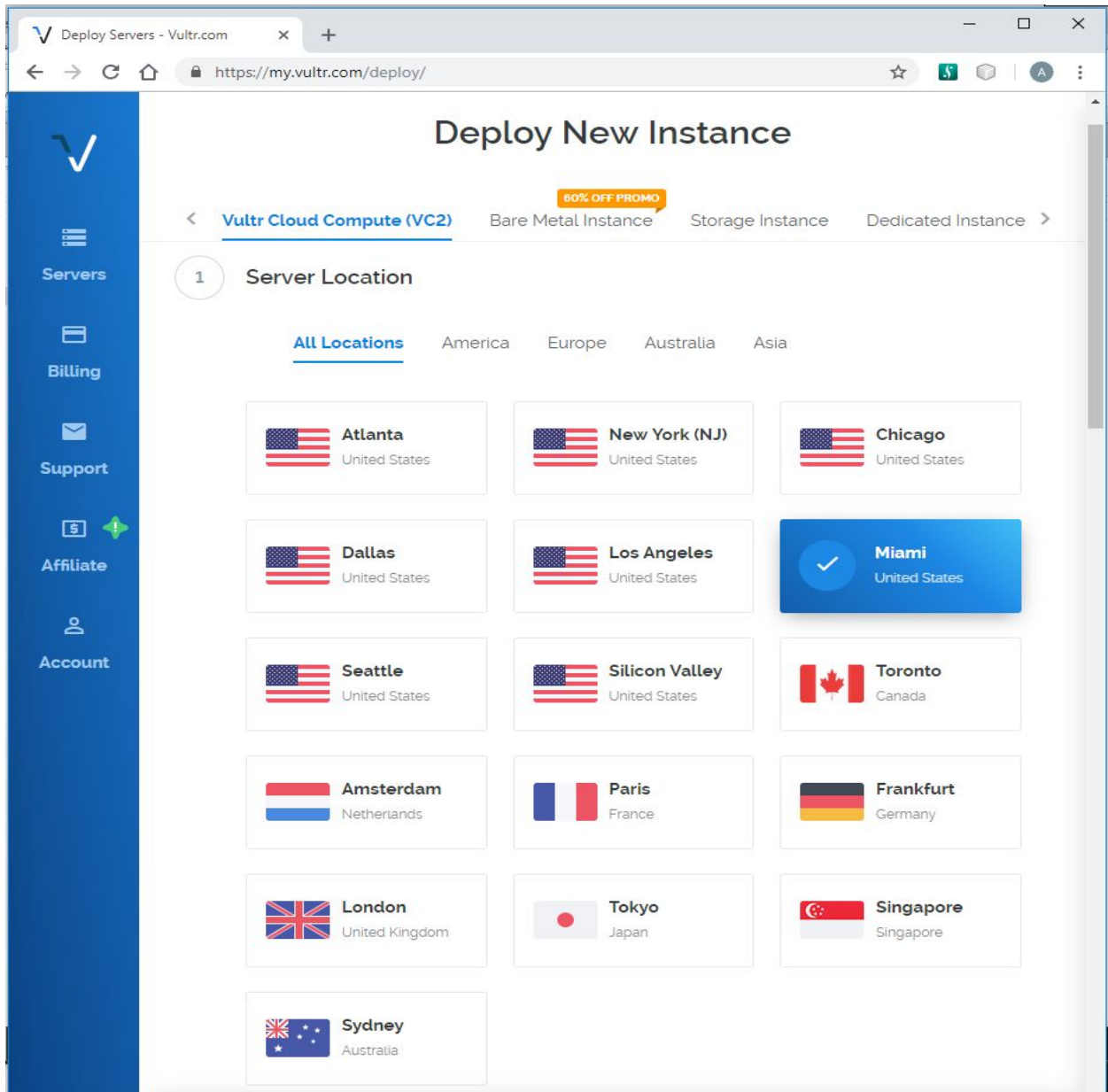
Step 1:

Click on the blue circle with the plus symbol to begin.



Step 2:

Choose a location for your VPS to be hosted from. This does not have to be in your region or even near to it.

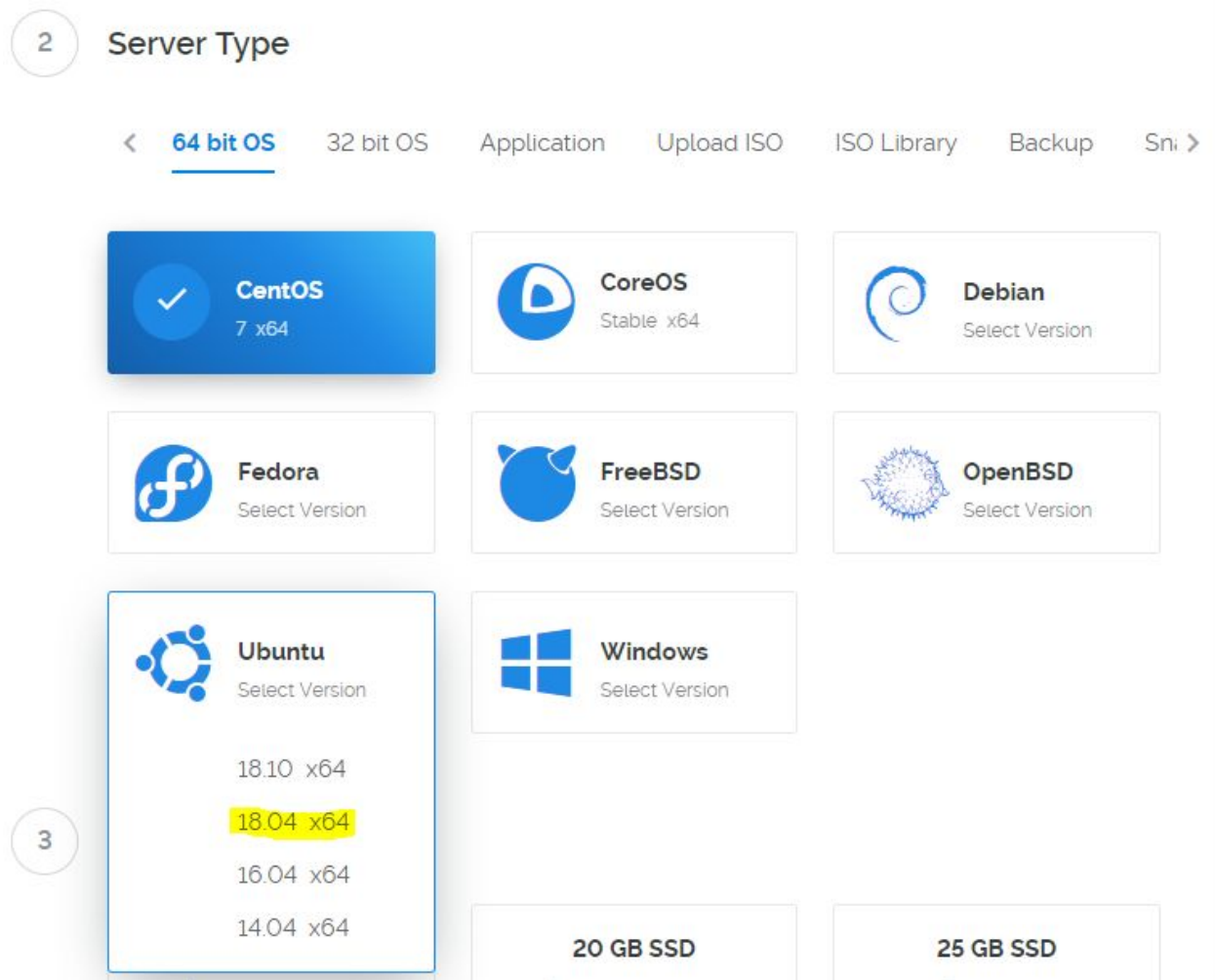


The screenshot shows the 'Deploy New Instance' page on the Vultr website. The page is titled 'Deploy New Instance' and features a navigation bar with tabs for 'Vultr Cloud Compute (VC2)', 'Bare Metal Instance', 'Storage Instance', and 'Dedicated Instance'. A '60% OFF PROMO' badge is visible above the 'Bare Metal Instance' tab. The left sidebar contains links for 'Servers', 'Billing', 'Support', 'Affiliate', and 'Account'. The main content area is titled '1 Server Location' and includes a filter bar with 'All Locations', 'America', 'Europe', 'Australia', and 'Asia'. Below the filter bar, a grid of server location cards is displayed, each showing a flag, the location name, and the country. The 'Miami' location is highlighted with a blue background and a checkmark icon.

Location	Country
Atlanta	United States
New York (NJ)	United States
Chicago	United States
Dallas	United States
Los Angeles	United States
Miami	United States
Seattle	United States
Silicon Valley	United States
Toronto	Canada
Amsterdam	Netherlands
Paris	France
Frankfurt	Germany
London	United Kingdom
Tokyo	Japan
Singapore	Singapore
Sydney	Australia

Step 3:

For Server Type, select **Ubuntu version 18.04 x64**.



Step 4:

Notes on selecting a server size: Any server size offered by Vultr will work with a BitCoin ONE masternode. However, the \$2.50/month server is IPv6 only and comes with some network limitations. If your home network can not resolve IPv6 address, you will not be able to easily log into to the new VPS to set up the masternode. You can check your network by going to this link <http://ipv6-test.com/>.

Because of the network limitations of the \$2.50/month VPS, you will not be able to initially set up the masternode on it. However, you can set up the masternode on any IPv4 plan and use Vultr's snapshot feature to copy it to the cheaper plan. These steps will be shown later in this guide.

For now, select the 20 GB SSD \$3.50/month server size.

3

Server Size

<div>IPv6 ONLY</div> <div>20 GB SSD</div> <div>\$2.50/mo</div> <div>\$0.004/h</div> <div>1 CPU</div> <div>512MB Memory</div> <div>500GB Bandwidth</div>	<div>20 GB SSD</div> <div>\$3.50/mo</div> <div>\$0.005/h</div> <div>1 CPU</div> <div>512MB Memory</div> <div>500GB Bandwidth</div>	<div>25 GB SSD</div> <div>\$5/mo</div> <div>\$0.007/h</div> <div>1 CPU</div> <div>1024MB Memory</div> <div>1000GB Bandwidth</div>
<div>40 GB SSD</div> <div>\$10/mo</div> <div>\$0.015/h</div> <div>1 CPU</div> <div>2048MB Memory</div> <div>2000GB Bandwidth</div>	<div>60 GB SSD</div> <div>\$20/mo</div> <div>\$0.03/h</div> <div>2 CPU</div> <div>4096MB Memory</div> <div>3000GB Bandwidth</div>	<div>100 GB SSD</div> <div>\$40/mo</div> <div>\$0.06/h</div> <div>4 CPU</div> <div>8192MB Memory</div> <div>4000GB Bandwidth</div>

Servers Qty:

-

1

+

Summary:

\$3.50/mo (\$0.005/hr)

Deploy Now

Step 5:

Leave all other options their default settings and click the Deploy Now button.


You will see the new VPS deployment being installed on the list.

<input type="checkbox"/>	Cloud Instance 512 MB Server	Los Angeles	<div>---</div> <div>Installing</div>
--------------------------	--	-------------	--------------------------------------

Step 6:






After the server is installed, click on Manage to open up the server info page.

<input type="checkbox"/>	Cloud Instance 512 MB Server - 45.63.58.160	Los Angeles	<div>---</div> <div>Running</div> <div>Manage</div>
--------------------------	---	-------------	---




Server Information

45.63.58.160 Los Angeles Ubuntu 16.04 x64

[Overview](#)
[Usage Graphs](#)
[Settings](#)
[Snapshots](#)
[Backups](#)
[DDOS](#)



Please note: Your server may still be finishing installing and booting up during the first few minutes of activation.

If the server does not ping, you can [view the console](#) to monitor progress.

Bandwidth Usage


0GB/500GB

CPU Usage


--

Current Charges



\$0.01

Location: 

Los Angeles

IP Address: 45.63.58.160  **2**

Username: root **3**

Password:   **4**

CPU: 1 vCore

RAM: 512 MB

Storage: 20 GB SSD

Bandwidth: 0 GB of 500 GB

Label: **1** [\[Click here to set\]](#)

Tag: [\[Click here to set\]](#)

OS: Ubuntu 16.04 x64

- 1) If you want to name this VPS for easy reference in your server list, click "Click here to set" and enter your text for the label. Then click the check mark to save the text.
- 2) This is the IP address for your VPS. Copy the IP address and paste it into your notepad.
- 3) This is your username that you will use to log into your VPS. Copy it and paste it into your notepad.
- 4) This is the password to log into your VPS. Copy it and paste it into your notepad.

```

Untitled - Notepad
File Edit Format View Help
bQaYPcDA4pVrKkAdBGcaG5iSucoaGff7eu

87dGeR2PtGtwk7n7qmd7EPUCvVoooX1oZrSsg6pvvT9tk2NCPDp

"txhash": "84527a0debb76ba6a38561c8e292a59a449fc74afa65fd5d4961500f409872a8",
"outputidx": 0

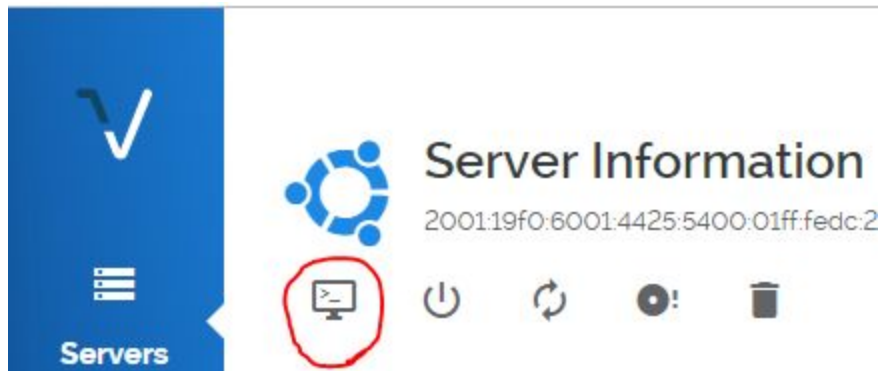
IP address 45.63.58.160

username root

password Et6*mx7M[rjmmYZZ
  
```

Chapter 5: VPS Setup

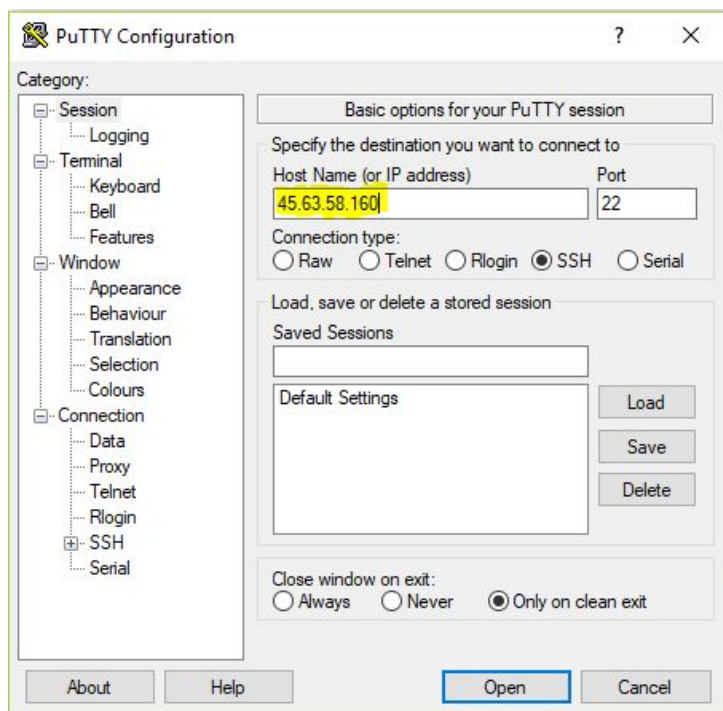
Now we will log into the VPS and begin setup. You can use the online console provided by Vultr by clicking this icon at the top of your Server Information page.



Other options are PuTTY <https://www.putty.org/> and Termius <https://www.termius.com/>. I prefer PuTTY and will be using it for the remainder of this guide.

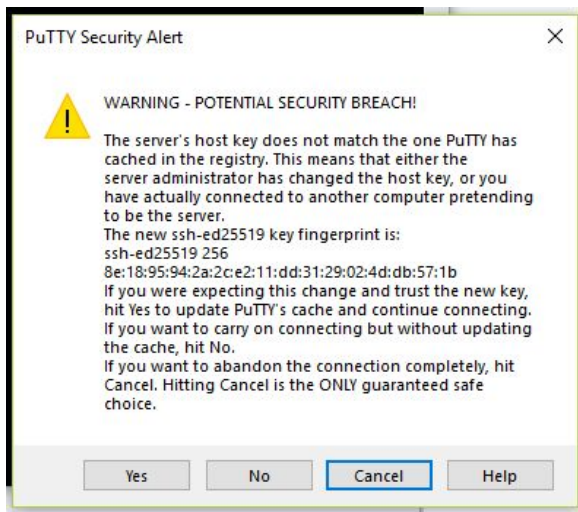
Step 1:

Start PuTTY. When the window opens, copy your VPS IP address from your notepad and paste it into the “Host Name (or IP address)” field. Leave the port number 22 and all other settings as the default. Click the Open button.



Step 2:

The first time you attempt to connect to a new server address, PuTTY will give you a warning. Click Yes.

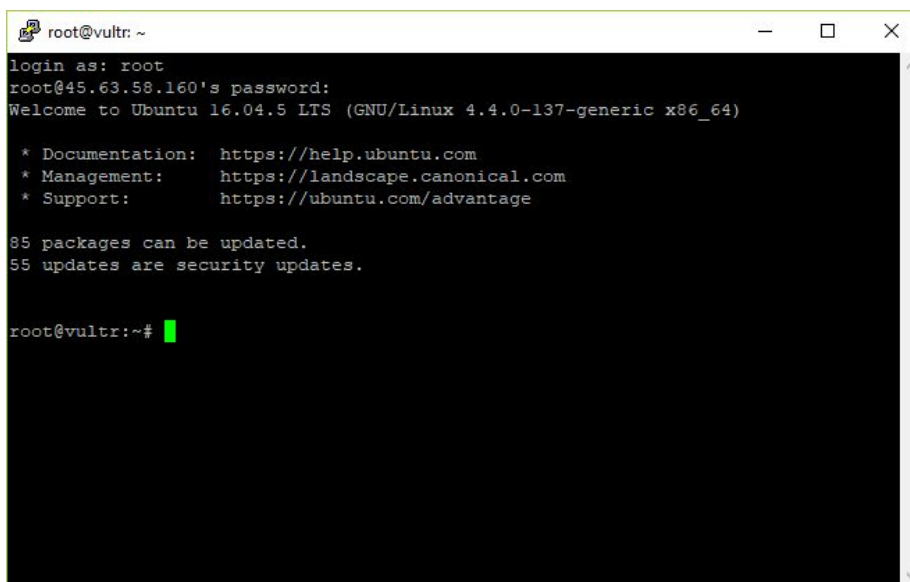
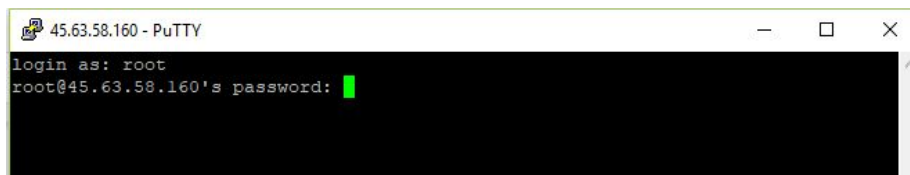


Step 3:

Enter your VPS username that you copied to your notepad and hit Enter.

When prompted, enter your VPS password you copied to your notepad. NOTE: For security reasons, PuTTY does not show the password as you type it nor will it show the cursor move.

Type out the password fully then hit Enter. You can also copy the password, right click in PuTTY to paste, then hit Enter.



Step 4: OPTIONAL BUT RECOMMENDED

Vultr's VPS come with only small amounts of available RAM. The initial RAM is sufficient to run a Bitcoin ONE masternode, however it is better to allocate some extra virtual RAM as well. The following steps will create a 4 GB swapfile.

A. Type in the command:

sudo fallocate -l 4G /swapfile

and hit Enter.

B. Check to see if the swapfile was created by typing the command:

ls -lh /swapfile

and hit Enter.

C. The output should be as shown in the picture below.

```
root@vultr:~# sudo fallocate -l 4G /swapfile
root@vultr:~# ls -lh /swapfile
-rw-r--r-- 1 root root 4.0G Jan 25 21:29 /swapfile
root@vultr:~#
```

D. Set the permissions of the swapfile by entering the command:

sudo chmod 600 /swapfile

And hit Enter.

E. Check the permission change by again using the command:

ls -lh /swapfile

and hit Enter.

F. The output should be as shown in the picture below.

```
root@vultr:~# sudo chmod 600 /swapfile
root@vultr:~# ls -lh /swapfile
-rw----- 1 root root 4.0G Jan 25 21:29 /swapfile
root@vultr:~#
```

G. Now mark the file as swap space by typing:

sudo mkswap /swapfile

and hit Enter.

```
root@vultr:~# sudo mkswap /swapfile
Setting up swapspace version 1, size = 4 GiB (4294963200 bytes)
no label, UUID=bebef6db-114d-46ef-affb-e507f336d65f
root@vultr:~# _
```


H. Now enable the swapfile, allowing the system to start utilizing it with the command:

sudo swapon /swapfile

and hit Enter.

I. Verify that the swap is available by entering the command:

sudo swapon --show

and hit Enter.

```
root@vultr:~# sudo swapon /swapfile
root@vultr:~# sudo swapon --show
NAME      TYPE SIZE USED PRIO
/swapfile file  4G   0B  -2
root@vultr:~#
```

J. Next, make the swapfile permanent.

Back up the /etc/fstab file in case anything goes wrong with the command:

sudo cp /etc/fstab /etc/fstab.bak

and hit Enter.

K. And finally, add the swapfile information to your /etc/fstab file by typing:

echo '/swapfile none swap sw 0 0' | sudo tee -a /etc/fstab

and hit Enter.

```
root@vultr:~# sudo cp /etc/fstab /etc/fstab.bak
root@vultr:~# echo '/swapfile none swap sw 0 0' | sudo tee -a /etc/fstab
/swapfile none swap sw 0 0
root@vultr:~#
```

Step 5:

To ensure that communication to and from your masternode is not blocked by the firewall, open port 41472.

To do this, enter the command:

sudo ufw allow 41472

and hit Enter.

```
root@vultr:~# sudo ufw allow 41472
Rules updated
Rules updated (v6)
root@vultr:~#
```

Step 6:

Now install the BitCoin ONE.

A. Navigate back to the root directory by entering the command:

cd ~

and hit Enter.

B. Download the wallet from GitHub (NOTE: Input all of this command on one line without returns):

wget

https://github.com/BitcoinONE1/BTCONE-Blockchain/releases/download/v3.1.100/bitcoinone-x86_64-linux-gnu.tar.gz

and hit Enter.

C. Wait for the file to completely download.

```
t&actor_id=0&response-content-disposition=attachment%3B%20filename%3Dbitcoinone-
x86_64-linux-gnu.tar.gz&response-content-type=application%2Foctet-stream
Resolving github-production-release-asset-2e65be.s3.amazonaws.com (github-produc
tion-release-asset-2e65be.s3.amazonaws.com)... 52.216.101.75
Connecting to github-production-release-asset-2e65be.s3.amazonaws.com (github-pr
oduction-release-asset-2e65be.s3.amazonaws.com)|52.216.101.75|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 24736965 (24M) [application/octet-stream]
Saving to: 'bitcoinone-x86_64-linux-gnu.tar.gz'

bitcoinone-x86_64-l 100%[=====>] 23.59M 1.16MB/s in 34s

2019-01-27 16:06:28 (708 KB/s) - 'bitcoinone-x86_64-linux-gnu.tar.gz' saved [247
36965/24736965]

root@vultr:~#
```

D. Unzip and extract the wallet by entering the command:

tar -zxvf bitcoinone-x86_64-linux-gnu.tar.gz

and hit Enter.

```
root@vultr:~# tar -zxvf bitcoinone-x86_64-linux-gnu.tar.gz
bitcoinone/
bitcoinone/bin/
bitcoinone/bin/bitcoinoned
bitcoinone/bin/bitcoinone-cli
bitcoinone/bin/bitcoinone-qt
bitcoinone/bin/bitcoinone-tx
root@vultr:~#
```

E. Navigate to the /bitcoinone/bin directory by entering the command:

cd ~/bitcoinone/bin

and hit Enter.

F. Start the BitCoin ONE daemon by entering the command:

./bitcoined --daemon

and hit enter.

```
root@vultr:~# cd ~/bitcoinone/bin
root@vultr:~/bitcoinone/bin# ./bitcoined --daemon
BTCONE server starting
root@vultr:~/bitcoinone/bin#
```

*****IMPORTANT!!!*****

MAKE SURE YOUR WALLET IS FULLY SYNCED!

G. The easiest way to track the sync process on your VPS is to type in the command:

./bitcoinone-cli getblockcount

and hit Enter.

```
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli getblockcount
40524
root@vultr:~/bitcoinone/bin#
```

Back on your local desktop wallet, hover the cursor over the green checkmark. If your local wallet is up to date, it will note it and list the last block height.



Check your VPS occasionally. When the block count equals your local desktop wallet block height, the VPS wallet is fully synced.

Note: If your VPS block count appears to be “stuck” without fully syncing, type in the command:

./bitcoinone-cli getinfo

and hit Enter.

If your connections are 0, then you have done something wrong in this setup guide and will need to delete your VPS wallet folder and start over at reinstalling the VPS wallet.

```
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli getinfo
{
  "version": 3020000,
  "protocolversion": 70914,
  "walletversion": 61000,
  "balance": 0.00000000,
  "zerocoinbalance": 0.00000000,
  "blocks": 55702,
  "timeoffset": 0,
  "connections": 15,
  "proxy": "",
  "difficulty": 189342.8250116241,
  "testnet": false,
  "moneysupply": 102779392.32226978,
  "zBTCONEsupply": {
    "1": 741.00000000,
    "5": 145.00000000,
    "10": 370.00000000,
    "50": 750.00000000,
    "100": 2600.00000000,
    "500": 7500.00000000,
    "1000": 19000.00000000,
    "5000": 70000.00000000,
    "total": 101106.00000000
  },
  "keypoololdest": 1548613942,
  "keypoolsize": 1001,
  "paytxfee": 0.00000000,
  "relayfee": 0.00010000,
  "staking status": "Staking Not Active",
  "errors": ""
}
root@vultr:~/bitcoinone/bin#
```

ONLY DO THIS IF YOU NEED TO DELETE THE VPS WALLET AND REINSTALL

To delete the VPS wallet, type in the command:

rm -r ~/.bitcoinone

and hit Enter.

This will delete all of the data files and downloaded blocks, including your VPS wallet.dat file!

After deleting the folder, restart at Step 6 of this chapter.

IMPORTANT!!!

MAKE SURE YOUR WALLET IS FULLY SYNCED BEFORE CONTINUING THIS GUIDE!

Step 7:

Once your VPS wallet is fully synced, end the wallet daemon by entering the command:

./bitcoinone-cli stop

and hit Enter.

```
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli stop
BTCONE server stopping
root@vultr:~/bitcoinone/bin#
```

Step 8:

Now configure your BitCoin ONE masternode.

A. Navigate to the BitCoin ONE data folder by typing in the command:

cd ~/.bitcoinone

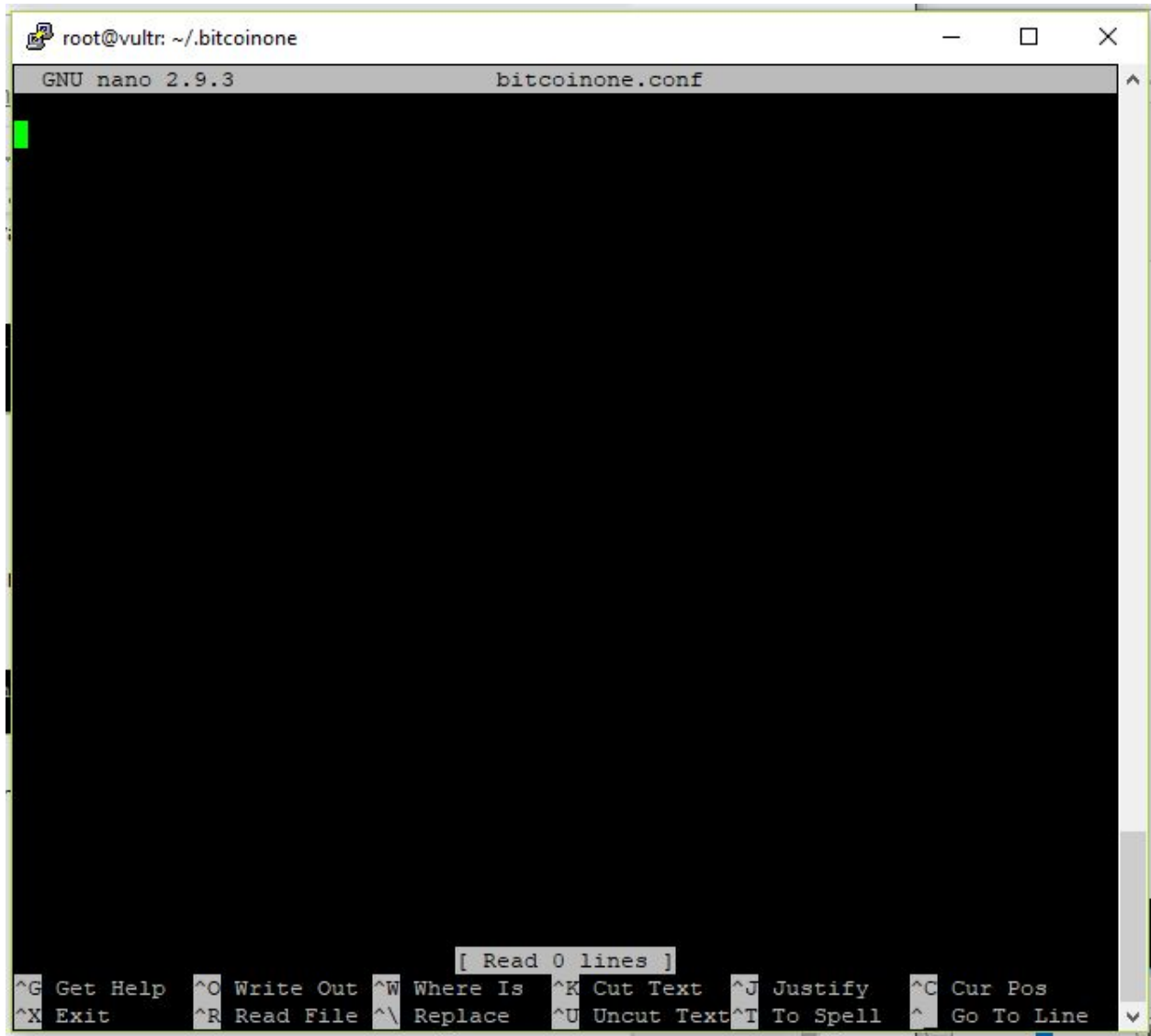
and hit Enter.

```
root@vultr:~/bitcoinone/bin# cd ~/.bitcoinone
root@vultr:~/bitcoinone#
```

B. Edit the bitcoinone.conf file by entering the command:

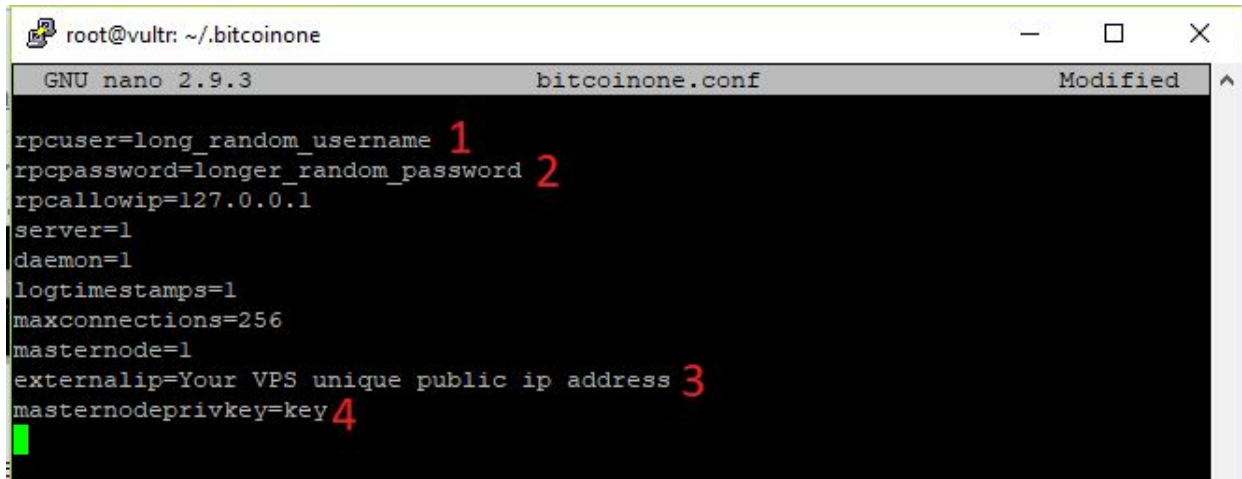
sudo nano bitcoinone.conf

and hit Enter.



C. Copy the following information into the bitcoinone.conf file you have open for editing.

```
rpcuser=long_random_username  
rpcpassword=longer_random_password  
rpccallowip=127.0.0.1  
server=1  
daemon=1  
logtimestamps=1  
maxconnections=256  
masternode=1  
externalip=Your VPS unique public ip address  
masternodeprivkey=key
```



```
root@vultr: ~/.bitcoinone
GNU nano 2.9.3 bitcoinone.conf Modified
rpcuser=long_random_username 1
rpcpassword=longer_random_password 2
rpcallowip=127.0.0.1
server=1
daemon=1
logtimestamps=1
maxconnections=256
masternode=1
externalip=Your VPS unique public ip address 3
masternodeprivkey=key 4
```

- 1) Delete “long_random_username” and replace with a unique username of your own. You will most likely never need this again, so feel free to just hit a bunch of random letters and numbers.
- 2) Delete “longer_random_password” and replace with a unique password of your own. You will most likely never need this again, so feel free to just hit a bunch of random letters and numbers.
- 3) Delete “Your VPS unique public ip address” and replace with the IP address to your Vultr VPS that you copied to your notepad earlier.
- 4) Delete “key” and replace with your masternode private key that you generated earlier and copied to your notepad.



```
root@vultr: ~/.bitcoinone
GNU nano 2.9.3 bitcoinone.conf Modified
rpcuser=la4rtjq4okgnq4o
rpcpassword=o4ijtnoqignio4gn98
rpcallowip=127.0.0.1
server=1
daemon=1
logtimestamps=1
maxconnections=256
masternode=1
externalip=45.63.58.160
masternodeprivkey=87dGeR2PtGtwk7n7qmd7EPUCvVooXl0ZrSsg6pvtT9tk2NCPDp
```

- 5) Close and Save your modified bitcoinone.conf file by hitting the CTRL and X keys. It will ask you if you want to save, hit the Y key. Then hit the Enter key to keep the same file name.

Step 9:

At this point your masternode is set up and ready to start. First reboot your VPS by using the command:

sudo reboot

This will close your connection through PuTTY. Wait a moment and then log back into your VPS with the same steps as before in steps 1, 2 and 3 of this chapter.

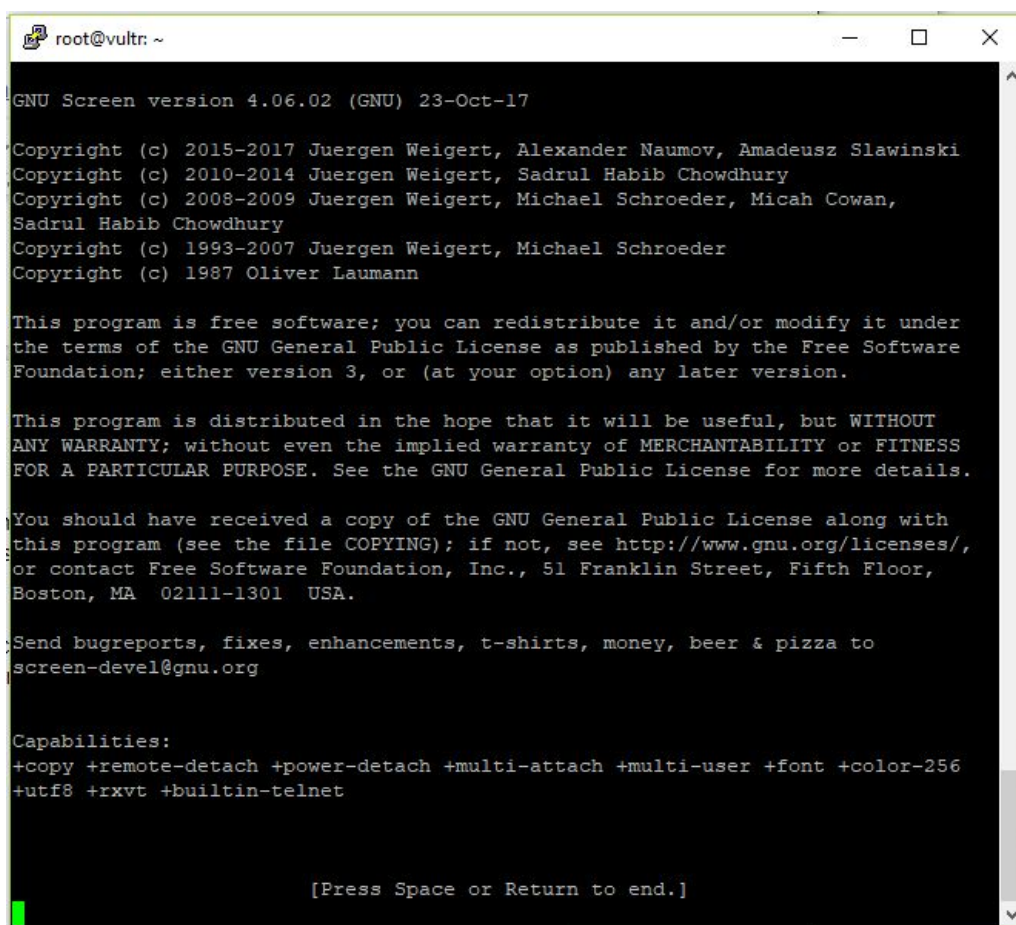
Step 10: OPTIONAL BUT RECOMMENDED

It is recommended that you use a linux feature called screen to run your masternode on. Screen creates a virtual terminal session that will remain running even if you close PuTTY or become disconnected.

To start screen, enter the command:

screen

and hit Enter.



```
root@vultr: ~
GNU Screen version 4.06.02 (GNU) 23-Oct-17

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Sadrul Habib Chowdhury
Copyright (c) 1993-2007 Juergen Weigert, Michael Schroeder
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You should have received a copy of the GNU General Public License along with
this program (see the file COPYING); if not, see http://www.gnu.org/licenses/,
or contact Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor,
Boston, MA 02111-1301 USA.

Send bugreports, fixes, enhancements, t-shirts, money, beer & pizza to
screen-devel@gnu.org

Capabilities:
+copy +remote-detach +power-detach +multi-attach +multi-user +font +color-256
+utf8 +rxvt +builtin-telnet

[Press Space or Return to end.]
```

Hit Space or Enter to continue.



```
root@vultr: ~
root@vultr:~#
```

Brief instructions on screen

If you become disconnected or close PuTTY, you can reconnect to the active screen by doing the following.

- A. Log into your VPS as you have done previously.
- B. Enter the command:
screen -ls
this will list all active screen sessions.
- C. Enter the command:
screen -r <with the name of the active screen session>
for example:
screen -r 890.pts-0.vultr

```
Last login: Sun Jan 27 19:23:03 2019 from 24.98.139.199
root@vultr:~# screen -ls
There is a screen on:
      890.pts-0.vultr (01/27/2019 07:16:27 PM)          (Detached)
1 Socket in /run/screen/S-root.
root@vultr:~# screen -r 890.pts-0.vultr
```

and hit Enter.

Step 11:

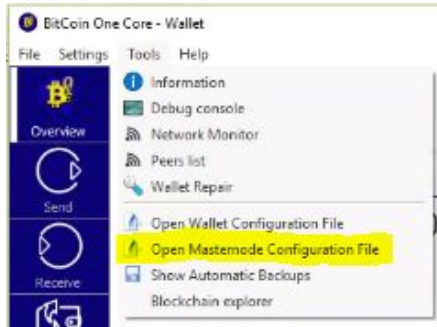
- A. Navigate to the bitcoinone/bin folder by entering the command:
cd ~/bitcoinone/bin
and hit Enter.
- B. Start your VPS wallet by entering the command:
./bitcoinoned
and hit Enter.

```
root@vultr: ~
root@vultr:~# cd ~/bitcoinone/bin
root@vultr:~/bitcoinone/bin# ./bitcoinoned
BTCONE server starting
root@vultr:~/bitcoinone/bin#
```


Chapter 6: Local wallet setup for masternode

Step 1:

Head back over to your local desktop wallet. Click on Tools and select “Open Masternode Configuration File”



A notepad window will open.



Step 2:

On a new line enter the following information:

- 1) Masternode alias (a name for your masternode)
- 2) IP address of your VPS with the port 41472
- 3) Your masternode private key you saved to your notepad
- 4) The transaction id of your 10000 BTCONe collateral that you saved to your notepad
- 5) The output index of the collateral transaction that you save to your notepad.

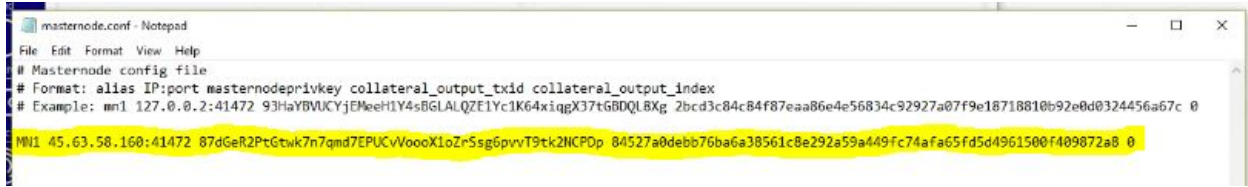
NOTE: All of this data MUST be put on a single line in the masternode configuration file. Do not hit enter between data. To double check that all the info is on one line, stretch the window wide enough to see if it all shows on one line.

For example, my masternode configuration data would be:

MN1 45.63.58.160:41472

87dGeR2PtGtwk7n7qmd7EPUCvVoooX1oZrSsg6pvvT9tk2NCPDp

84527a0debb76ba6a38561c8e292a59a449fc74afa65fd5d4961500f409872a8 0



```
masternode.conf - Notepad
File Edit Format View Help
# Masternode config file
# Format: alias IP:port masternodeprivkey collateral_output_txid collateral_output_index
# Example: mn1 127.0.0.2:41472 93HaYBVUCYjEMeeH1Y4sBGLALQZE1Yc1K64xiqgX37t6BDQL8Xg 2bcd3c84c84f87eaa86e4e56834c92927a07f9e18718810b92e0d0324456a67c 0
MN1 45.63.58.160:41472 87dGeR2PtGtwk7n7qmd7EPUCvWooX1oZrSsg6prvT9tk2NCPDp 84527a0debb76ba6a38561c8e292a59a449fc74afa65fd5d4961500f409872a8 0
```

Step 3:

Close the masternode configuration file. When prompted, choose Save.

Step 4:

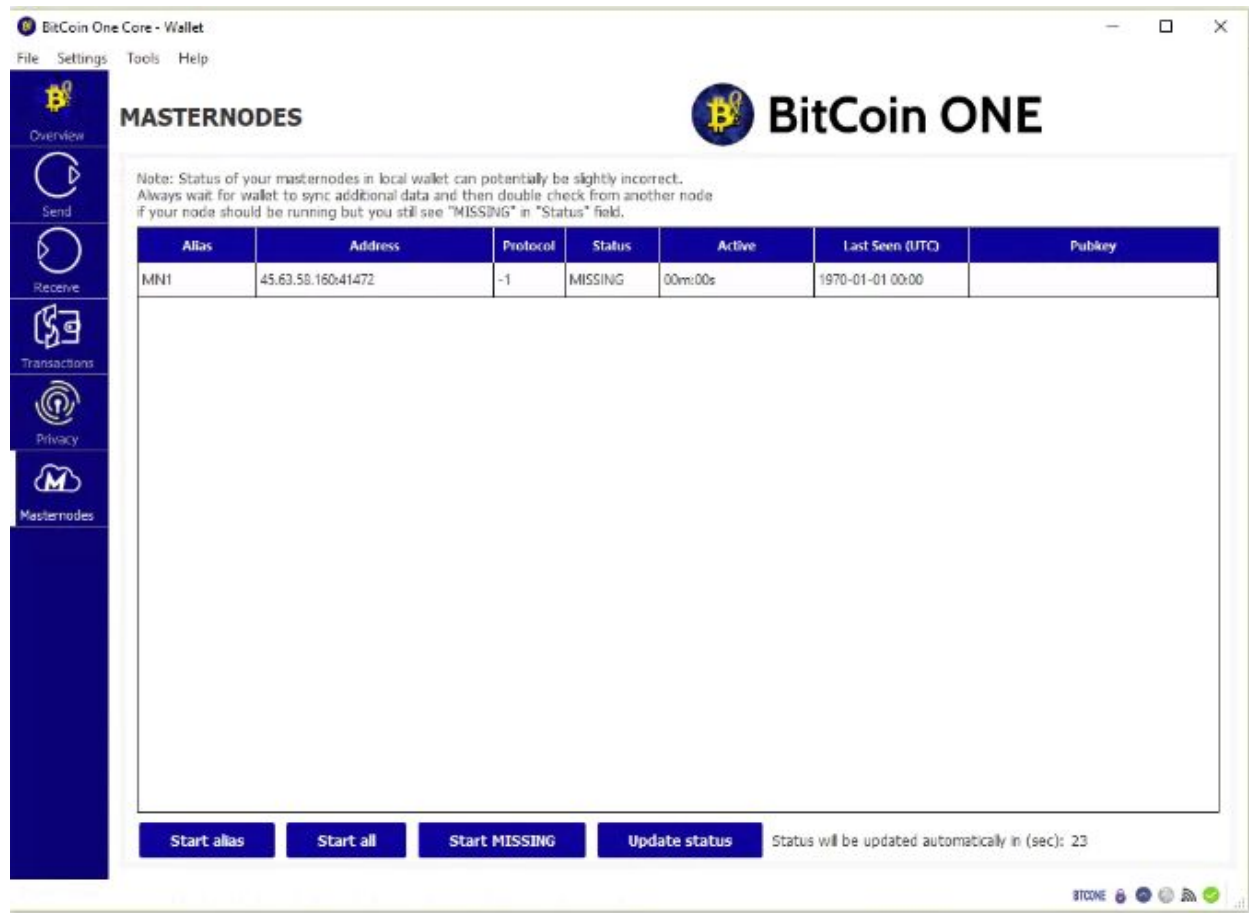
Close your local desktop wallet and restart it. Wait for it to completely sync again.

If your wallet does not open and gives you an error, you have put the data into your masternode configuration file incorrectly. Open your file explorer. In the search bar enter the text %appdata% and hit enter. Navigate to the BTCONe folder located there. Open up the masternode.conf file and edit it correctly by reviewing the previous steps in this chapter. Save and close the file and restart your wallet again.

Chapter 7: Starting your masternode

Step 1:

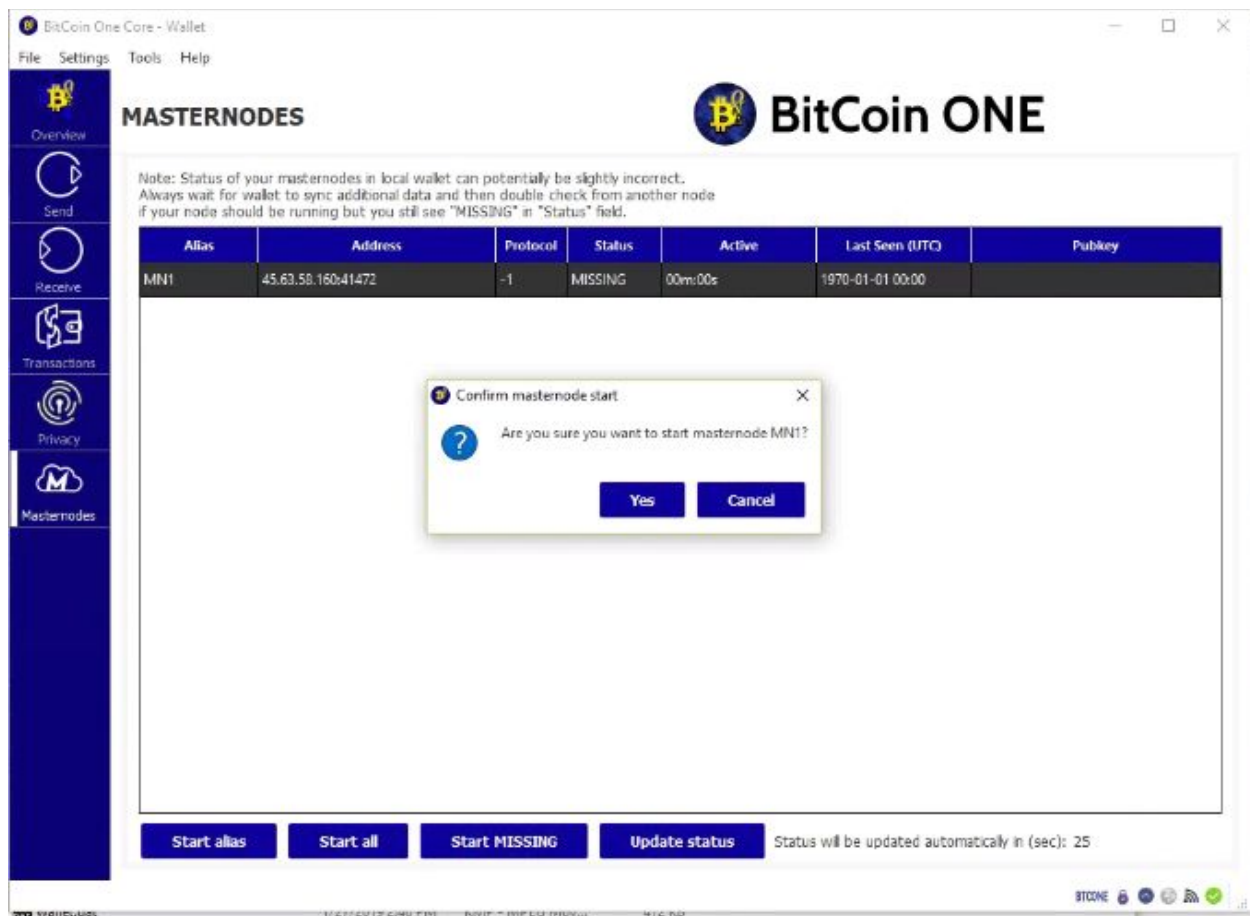
Once your local wallet is synced, go to the Masternodes tab.



You should see your masternode listed here. If you do not, you have filled out the masternode configuration file incorrectly. Review the last chapter to find your mistake.

Step 2:

Select the masternode in the list and click the Start alias button.



A window will pop up asking you to confirm. Click Yes.

Step 3:

If your wallet is encrypted and locked, a window will pop up asking you to unlock your wallet. Enter your passphrase and click OK.



Step 4:

If you have done everything correctly to this point, a window will pop up stating that the masternode has successfully been started.



Click OK.

Step 5:

Now you need to start the masternode on your VPS. Head back over to your VPS. You should still be in the ~/bitcoinone/bin folder and ./bitcoinoned should still be running. Enter the command:

./bitcoinone-cli startmasternode local false

and hit Enter.

If you get this Not Capable error, wait a moment and restart the alias in your local desktop wallet then attempt to restart the VPS masternode again with the command:

./bitcoinone-cli startmasternode local false

```
root@vultr: ~  
root@vultr:~# cd ~/bitcoinone/bin  
root@vultr:~/bitcoinone/bin# ./bitcoinoned  
BTCONE server starting  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Not capable masternode: Hot node, waiting for remote activation.  
root@vultr:~/bitcoinone/bin#
```

You may need to try this a few times before the VPS masternode starts. Just wait a few moments between attempts, restart local alias, restart VPS masternode.

When your VPS masternode starts, you will see this message.

```
root@vultr: ~  
root@vultr:~# cd ~/bitcoinone/bin  
root@vultr:~/bitcoinone/bin# ./bitcoinoned  
BTCONE server starting  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Not capable masternode: Hot node, waiting for remote activation.  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Not capable masternode: Hot node, waiting for remote activation.  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Not capable masternode: Hot node, waiting for remote activation.  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Not capable masternode: Hot node, waiting for remote activation.  
root@vultr:~/bitcoinone/bin# ./bitcoinone-cli startmasternode local false  
Masternode successfully started  
root@vultr:~/bitcoinone/bin#
```

Your masternode is now running! You can close PuTTY now. It will take about 2 or 3 hours to propagate your node across the network. After that time, you will then be eligible to receive masternode rewards. It may take a few minutes to a few hours after propagation before you see your first reward.

Chapter 8: Copying your VPS masternode to another Vultr server

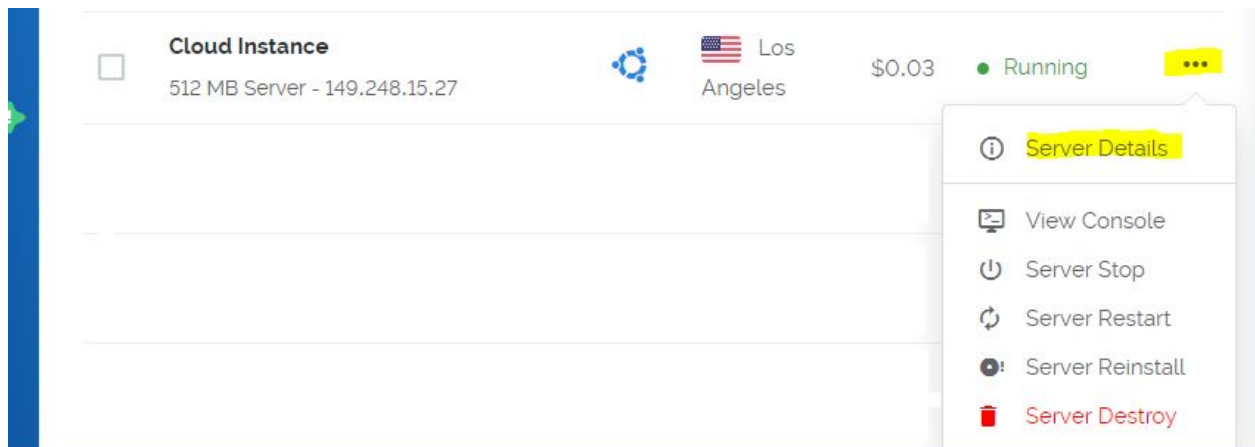
Copying your VPS will allow you to move it to one of Vultr's \$2.50/month server sizes. You can also use this portion of the guide to help you set up multiple masternodes easily.

Step 1:

Log in to your Vultr account.

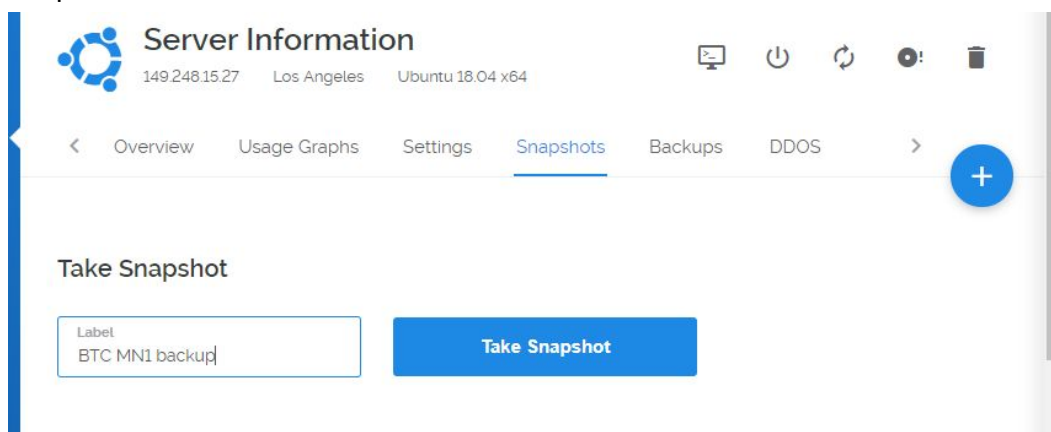
Step 2:

On your server list, click on the ellipsis (...) next to your masternode server and select Server Details to open the server information page.



Step 3:

Click on the Snapshots tab. Enter a label for the new snapshot and click the Take Snapshot Button.



Step 4:

Wait until the snapshot process has been finished.

Step 5:

Create a new server as explained in Chapter 4 of this guide.




Step 6:

Once your new server has fully installed, open the Server Information Page and click on the Snapshots tab.

Step 7:


Near the bottom of the page, find the snapshot your created earlier and select the Restore Snapshot icon.

Restore Snapshot

Name	OS	Date	Status	
a9a5c42309445 (20GB) BTC1_1		2019-01-18 20:01:24	● Available	 

Step 8:

A warning will pop up. Check the box and click the Restore Snapshot button.

 **Restore Snapshot?**

Snapshot: **a9a5c42309445 BTC1_1**

Are you sure you want to restore this snapshot? Any data currently on this machine will be overwritten.

☐ Yes, restore snapshot on this server.

Restore Snapshot

Cancel

Step 9:

Wait until the snapshot is fully installed on your new server.

Step 10:

Log into your new VPS using the new IP address. NOTE: Because this is now a copy of the previous VPS, the username and password for the VPS are now the same as the VPS you copied.

Step 11:

Navigate to the ~/.bitcoinone folder:

cd ~/.bitcoinone

Step 12:

Open the bitcoinone.conf file for editing:

sudo nano bitcoinone.conf

Step 13:

Change the IP address listed in this file to the IP address of your new VPS.

Note: if your IP address is an IPv6 address, you will need to surround the address in brackets.

For example:

[2443:1v10:2D01:678:9900:03rf:fyu9:7j92]:41472

Step 14:

If you are only moving your VPS masternode, close the .conf file and save it by hitting the CTRL and X keys, hit Y and then hit enter.

If you are setting up an additional masternode, you will need to edit the masternodeprivkey line to match your new masternode private key before closing and saving.

Step 15:

Navigate to the ~/bitcoinone/bin folder:

cd ~/bitcoinone/bin

Step 16:

Start the VPS wallet:

./bitcoinoned

Step 17:

In your local desktop wallet, edit your masternode configuration file by selecting Tools and select "Open Masternode Configuration File"

If you are moving your VPS masternode, edit the IP address in the line for the masternode your moving. Close and save the file.

If you are setting up an additional masternode, create a new line containing the masternode alias, new ip:port, masternode private key, transaction ID, and output index for the new masternode as done in Chapter 6, Step 2 of this guide. Close and save the .conf file.

Step 18:

Close and restart your local desktop wallet. Wait for it to fully sync.

Step 19:

Go to the Masternodes tab. Select the moved or new masternode in the list and click the Start alias button.

Step 20:

Return to your VPS, still in the ~/bitcoinone/bin folder with ./bitcoinoned still running, start the VPS masternode with the command:

./bitcoinone-cli startmasternode local false

Remember, you may need to do this process a few times. See Chapter 7, Step 5.