DIAMOND 3.0 MASTERNODE + POS WALLET ON VPS

Single masternode + POS headless
Wallet on VPS (Linux)

Prerequisites:

a - A remote server (Virtual Private Server, VPS) which will be our wallet.

b - A local computer running under Windows 7, 8.1 or 10

c - PuTTY, which will be used to setup the server (install the dependencies, the wallet itself, and configure everything) after the initial configuration.

d - 10’001 DMD as collateral (10’000 DMD + 1 DMD to cover the transaction fees)

Plan of action:

1 - Buy VPS service and setup Ubuntu on it. You'll need to have one CPU and at least 1GB of RAM on it to be able to compile and run the wallet.
2 - Download PuTTY here http://www.putty.org/, install it, run it and connect to your server.
3 - Login as root, update Ubuntu and install all the dependencies.

4 - Compile and install the wallet from sources.
5 - Configure the wallet and start our masternode :)

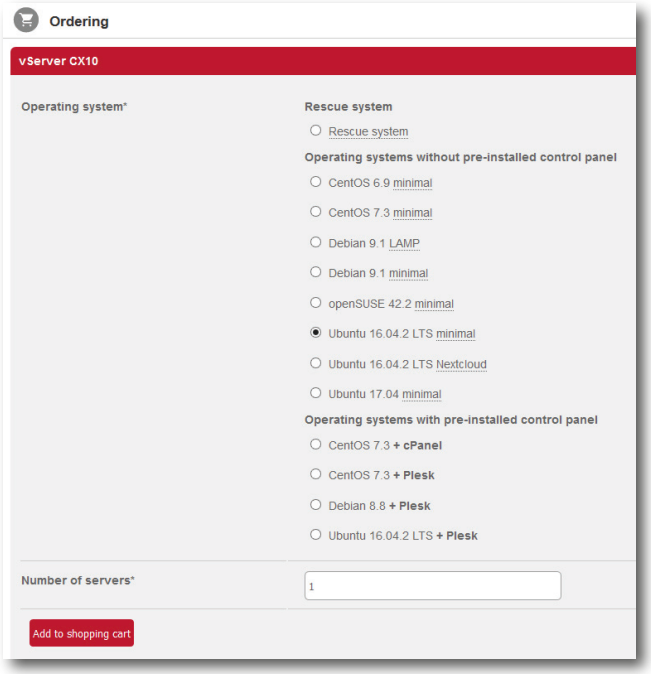
* Notes: This guide was writen on testnet, a few links on the following screenshots are related to the testnet. The correct links and commands are always in text.

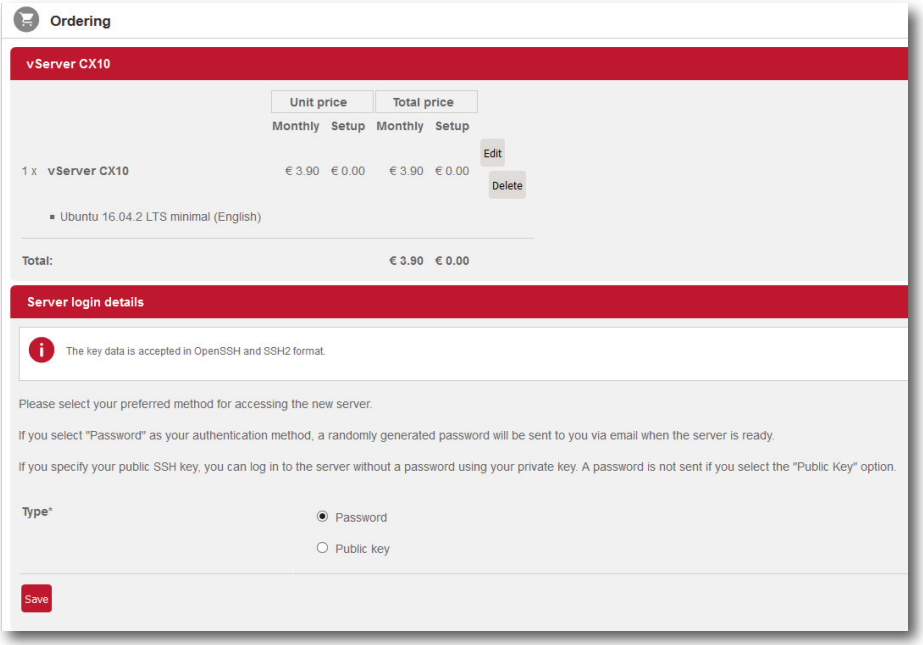
1

For the purpose of this guide I have used a VPS provider HETZNER (https://www.hetzner.com/)

Linux distro under which the wallet was compiled and run is Ubuntu 16.04.
Other different versions of Linux might require some other commands or syntax which won't be covered in this guide.

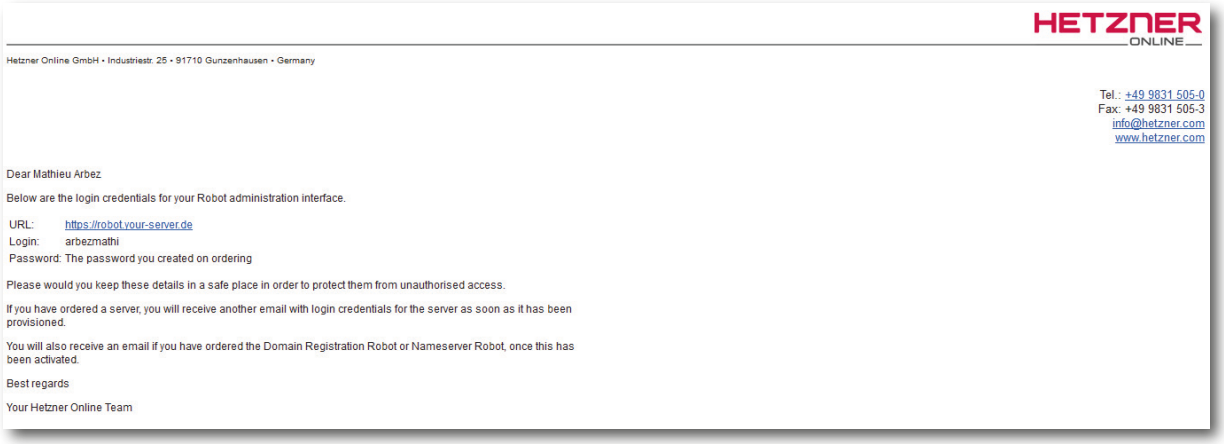
Important: The server configuration is bare minimum 1 CPU and 1 GB of RAM.
This is enough to run the wallet but might not be enough to compile it.
To compile the wallet you need 2GB of ram or if you have a 1GB RAM server you need to create a Swap file of 1GB.
Detailed instructions on how to do it are provided further on.





Choose the password option here

As soon as your order will be proceed, Hetzner will send you an email with your login information along with the static IP of your server.



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Dear Mathieu Arbez

Below are the login credentials for your Robot administration interface.

URL: https://robot.your-server.de
Login: arbezmathi
Password: The password you created on ordering

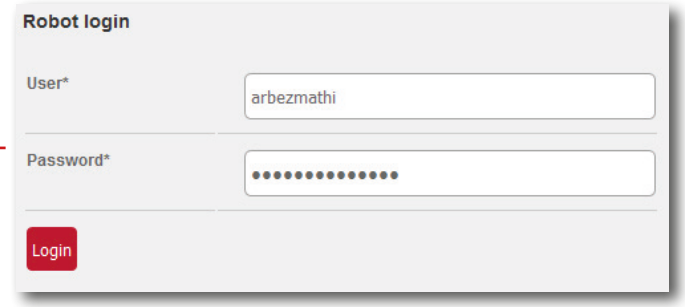
Please would you keep these details in a safe place in order to protect them from unauthorised access.

If you have ordered a server, you will receive another email with login credentials for the server as soon as it has been provisioned.

You will also receive an email if you have ordered the Domain Registration Robot or Nameserver Robot, once this has been activated.

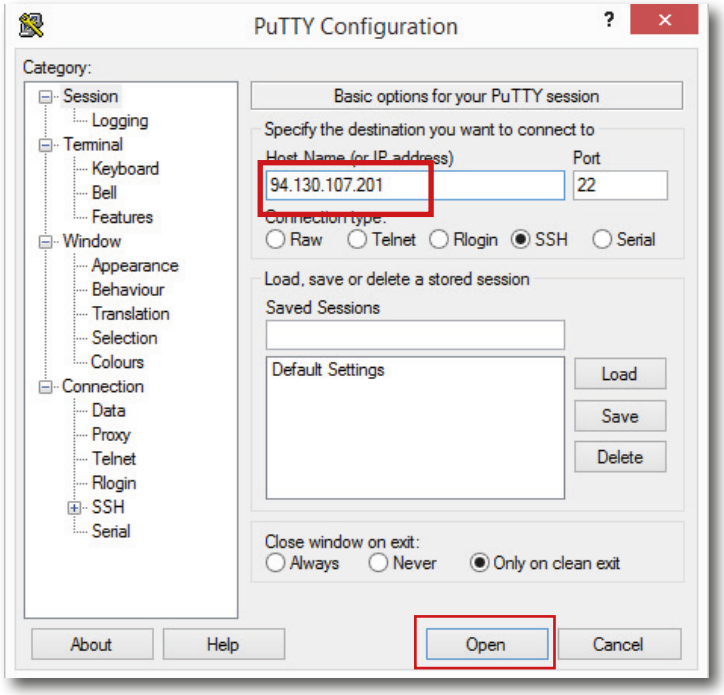
Best regards

Your Hetzner Online Team



2

Download PuTTY here http://www.putty.org/, install it then run it. Fill the *Host Name field* with your server's IP. Click on the *open* button to connect and access to the terminal. Use the default port (22). You don't need to change any option. An error message may appears, ignore it.



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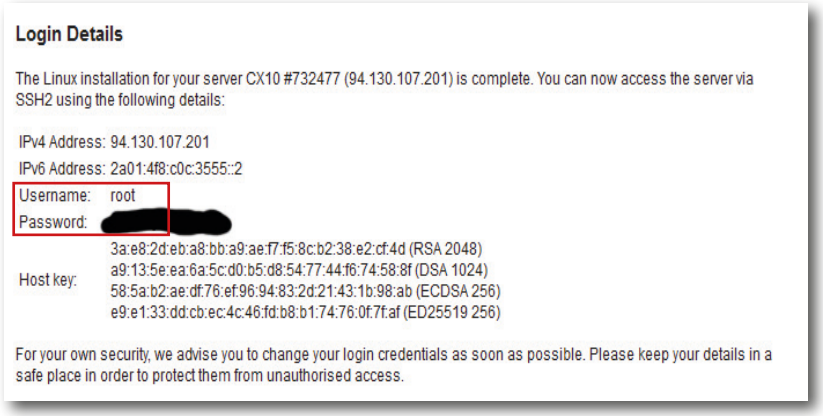


Login Details

The Linux installation for your server CX10 #732477 (94.130.107.201) is complete. You can now access the server via SSH2 using the following details:

IPv4 Address: 94.130.107.201
IPv6 Address: 2a01:4f8:c0c:3555::2
Username: root
Password: [redacted]

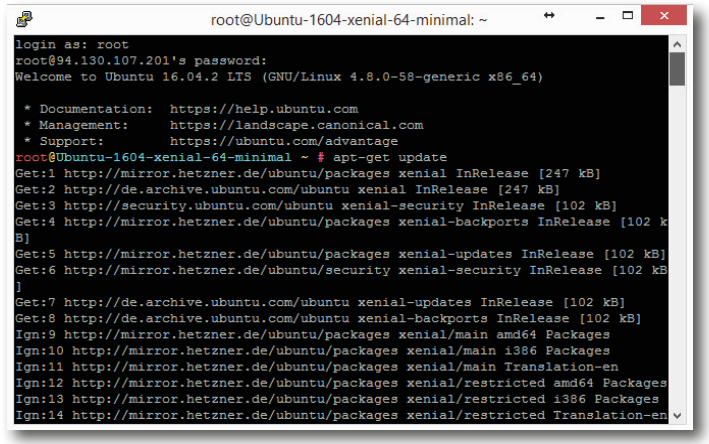
Host key:
3a:e8:2d:eb:a8:bb:a9:ae:f7:f5:8c:b2:38:e2:cf:4d (RSA 2048)
a9:13:5e:ea:6a:5c:d0:b5:d8:54:77:44:f6:74:58:8f (DSA 1024)
58:5a:b2:ae:df:76:ef:96:94:83:2d:21:43:1b:98:ab (ECDSA 256)
e9:e1:33:dd:cb:ec:4c:46:fd:b8:b1:74:76:0f:7f:af (ED25519 256)

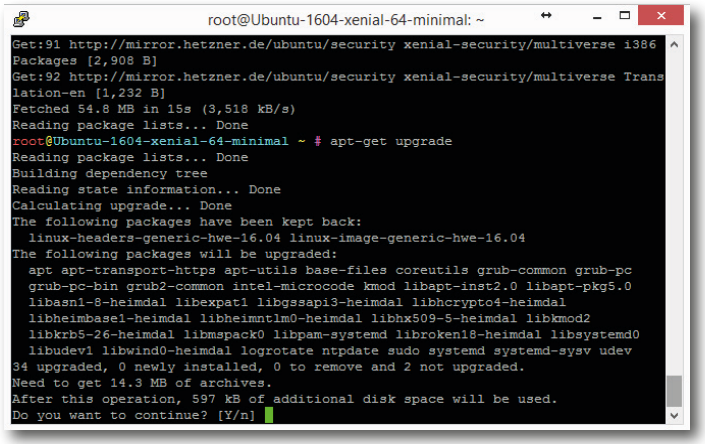
For your own security, we advise you to change your login credentials as soon as possible. Please keep your details in a safe place in order to protect them from unauthorised access.

Use login details from your VPS provider to access the server, update Ubuntu then install all necessary libraries to either be able to compile the wallet or run it.

Important: in Linux to copy a text we use buttons Ctrl+Insert and to paste Shift+Insert- [Ctrl+C/V won't work] please use these buttons from now on. Paste into the terminal window following commands and hit Enter to confirm. Commands are in blue font - copy and paste only these into your terminal window.

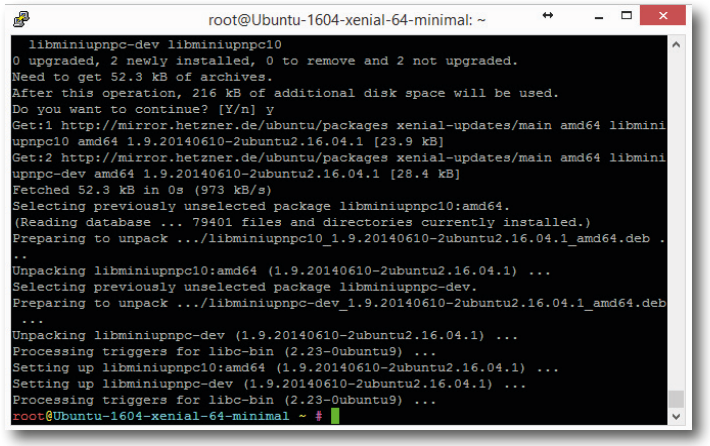
```
sudo apt-get update & sudo apt-get upgrade
sudo apt-get install build-essential libtool autotools-dev autoconf pkg-config libssl-dev
sudo apt-get install software-properties-common
sudo add-apt-repository ppa:bitcoin/bitcoin
sudo apt-get update
sudo apt-get install libdb4.8-dev libdb4.8++-dev
sudo apt-get install libboost-all-dev
sudo apt-get install libminiupnpc-dev
```





These are necessary libraries to either be able to compile the wallet or run it [if you use a precompiled one]

4

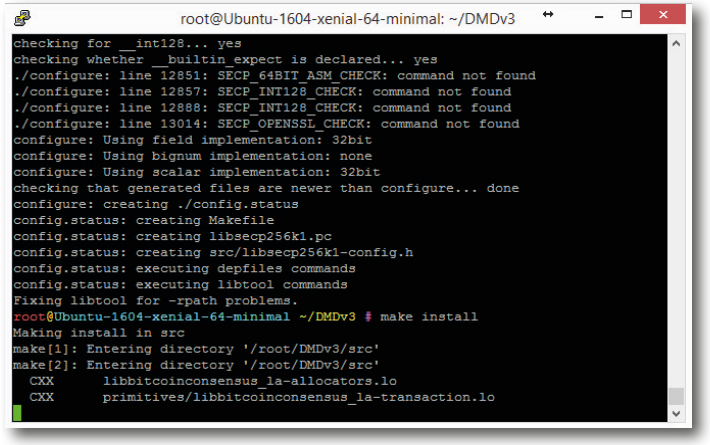


Once we have all dependencies we can download and compile the wallet:

sudo apt-get install git
git clone https://github.com/DMDcoin/Diamond.git
cd Diamond
sudo apt-get install automake
./autogen.sh
./configure
make install (this can take awhile and some warning messages will be shown it's perfecly normal)

After compilation:

cd src
mv diamondd diamond-cli diamond-tx ~/
cd ~/
rm-r Diamond



If you don't have more than 1GB of RAM on your VPS, please follow these instructions to enable a SWAP file for being compile

Create a Swap file:
When entering these commands you will get no feedback, just enter them one by one, the changes happen.

```
sudo fallocate-l 1G /swapfile
sudo chmod 600 /swapfile
sudo mkswap /swapfile
sudo swapon /swapfile
```

Making Swap file permanent (optional):
We have our swap file enabled, but when we reboot, the server will not automatically enable the file. We can change that by modifying the fstab file.

```
sudo nano /etc/fstab
```

At the bottom of the file, you need to add a line that will tell the operating system to automatically use the file you created:

```
/swapfile none    swap    sw 0   0
```

Save and exit the text editor.
To exit NANO text editor press Ctrl+X and confirm changes.
(Optional) You might need to reboot the system if ./autogen.sh command fails to run. Type: reboot and your session will terminate. Reconnect and continue with the guide.

5

We will now create a hidden .diamond folder, start the configuration and launch the wallet once for getting our masternode private key and output:

```
cd/root
mkdir ../root/.diamond
nano /root/.diamond/diamond.conf
```

We need to edit diamond.conf two times. The first edit is requiered for being able to run diamondd and get our gen key and output. We will add the key and switch masternode to «1» with the second edit. It will be our final edit. Copy and paste these, changing appropriate fields then exit nano:

```
rpcuser=YOUR_LONG_AND_RANDOM_USERNAME
rpcpassword=YOUR_VERY_LONG_AND_RANDOM_PASSWORD
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logtimestamps=1
maxconnections=50
port=9999
masternode=0
externalip=YOUR_UNIQUE_VPS_IP_ADDRESS
masternodeaddr=YOUR_UNIQUE_VPS_IP_ADDRESS:17771
discover=0
#nodes for connectivity
addnode=73.212.206.198
addnode=77.119.249.127
addnode=188.68.52.172
addnode=5.189.163.135
```

Exemple:

```
rpcuser=Diamond5455151nnhg54
rpcpassword=HrHnGXhyvdrhj899f21ldd6v7ppL5Tvdrhdd312fvbD
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logtimestamps=1
maxconnections=50
port=9999
masternode=0
externalip=94.130.107.201
masternodeaddr =94.130.107.201:17771
discover=0
addnode=73.212.206.198
addnode=77.119.249.127
addnode=188.68.52.172
addnode=5.189.163.135
```

Important! Before going further we need to send 10’000 DMD to our masternode wallet address. The amount have to be 10’000. This transaction is the necessary condition to generate the masternode output we will need later.
To get your masternode wallet address run:

./diamondd
./diamond-cli getaccountaddress <label>

Now send 10’000 DMD to your masternode address. If you have to send the collateral from this wallet, generate a labelled adress and send it there with:

./diamond-cli getaccountaddress MN1
./diamond-cli sendtoaddress <MN1 address> <10000>

We can now get our genkey and outputs:

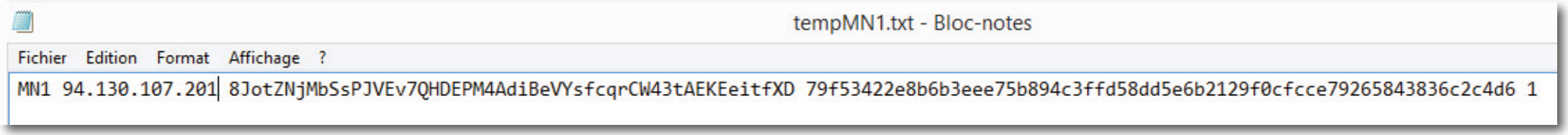
./diamond-cli masternode genkey
./diamond-cli masternode outputs

That’s all the informations we need! Copy and paste the key and outputs in tempMN1.txt then close our wallet with

./diamond-cli masternode stop

Important! Don’t copy paste everything and format your data into tempMN1.txt file like this:
<onion address> <masternode genkey> <masternode output>

```
root@Ubuntu-1604-xenial-64-minimal ~ # diamond-cli masternode genkey
8JotZNjMbSsPJVEv7QHDEPM4AdiBeVYsfcqrCW43tAEKEeitfXD
root@Ubuntu-1604-xenial-64-minimal ~ # diamond-cli masternode outputs
{
    "79f53422e8b6b3eee75b894c3ffd58dd5e6b2129f0cfcce79265843836c2c4d6" : "1"
}
root@Ubuntu-1604-xenial-64-minimal ~ #
```

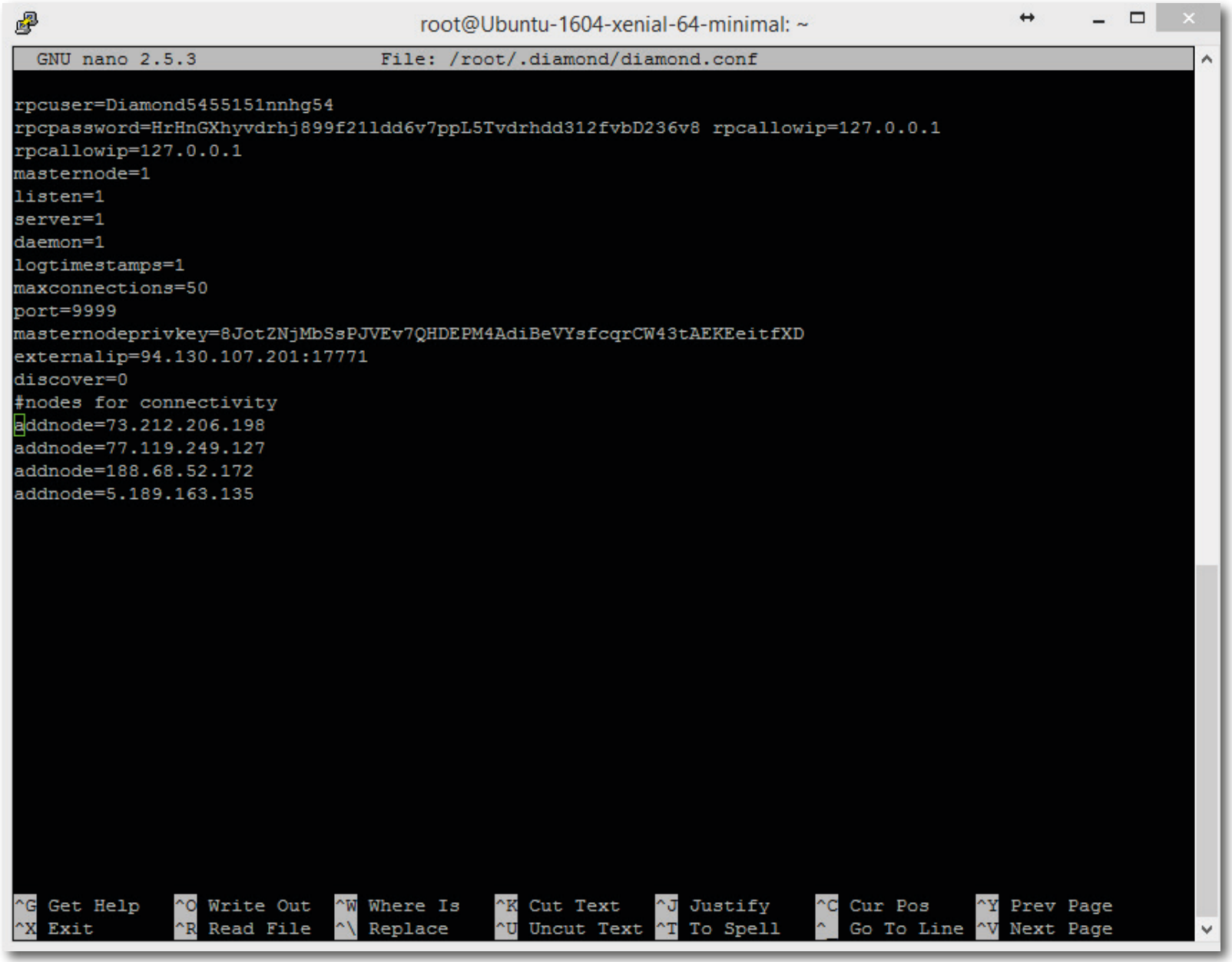


Now open our diamond.conf one last time, switch masternode to «1» and add the private key we just generated:
nano /root/.diamond/diamond.conf

```
rpcuser=YOUR_LONG_AND_RANDOM_USERNAME
rpcpassword=YOUR_VERY_LONG_AND_RANDOM_PASSWORD
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logtimestamps=1
maxconnections=50
port=9999
masternode=1
externalip=YOUR_UNIQUE_VPS_IP_ADDRESS
masternodeaddr=YOUR_UNIQUE_VPS_IP_ADDRESS:17771
masternodeprivkey=YOUR_UNIQUE_PRIVATE_KEY (genkey)
discover=0
#nodes for connectivity
addnode=73.212.206.198
addnode=77.119.249.127
addnode=188.68.52.172
addnode=5.189.163.135
```

Exemple:

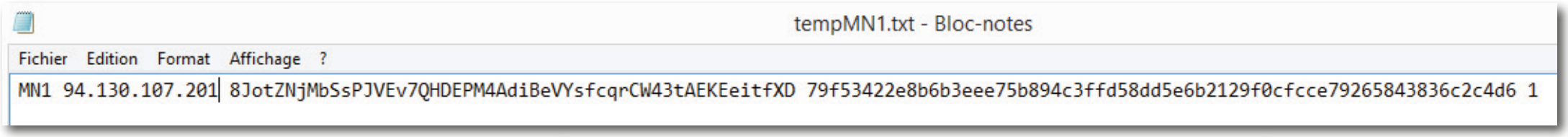
```
rpcuser=Diamond5455151nnhg54
rpcpassword=HrHnGXhyvdrhj899f21ldd6v7ppL5Tvdrhdd312fvbD
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logtimestamps=1
maxconnections=50
port=9999
masternode=1
externalip=94.130.107.201
masternodeaddr=94.130.107.201:17771
masternodeprivkey=8KqvTqddyt3Mn6Nfysstx ...
discover=0
addnode=73.212.206.198
addnode=77.119.249.127
addnode=188.68.52.172
addnode=5.189.163.135
```

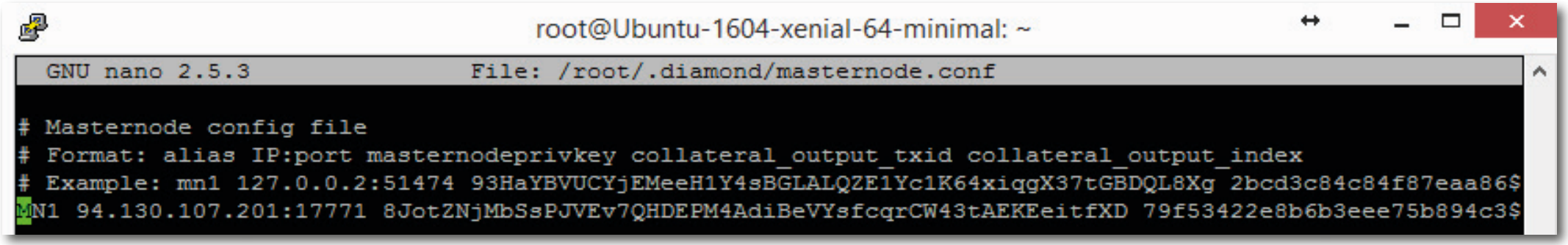


Your configuration file must look like this.

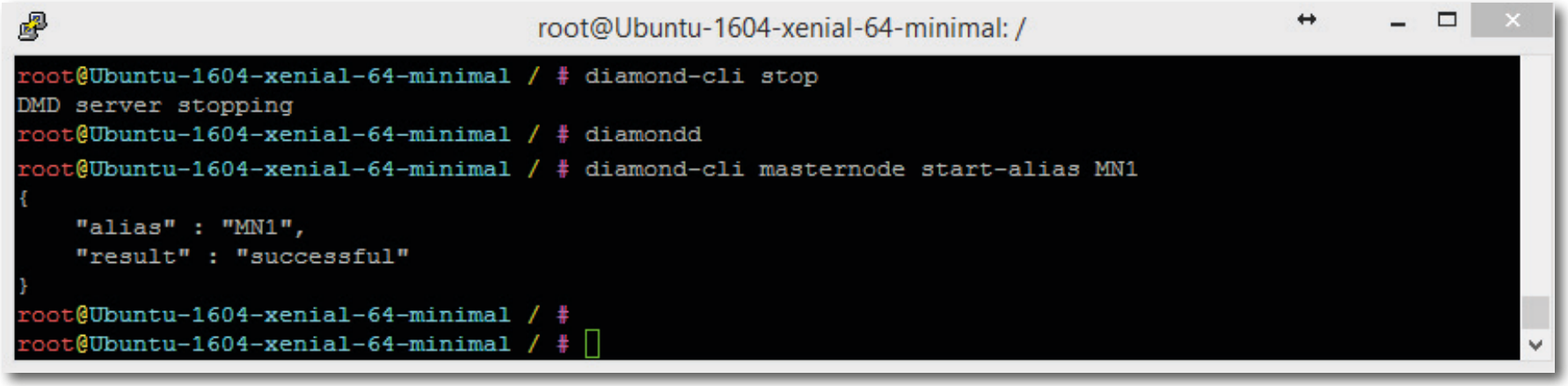
To add more nodes, just edit the diamond.conf file.

To finish the configuration open our masternode.conf and copy paste the content of our tempMN1 in it:
nano /root/.diamond/masternode.conf





Note: If your masternode isn't reachable, you might need to open your 17771 port. Execute the following commands:
iptables-t nat-I OUTPUT-d <your_vps_ip>-p tcp--dport 17771-j REDIRECT--to-ports 17771
cd..
/etc/init.d/iptables restart



Let's start our masternode wallet :)
./diamondd
./diamond-cli masternode start-alias MN1 (MN1 is the alias we gave to our masternode in masternode.conf)

To get your default unlabelled wallet address just execute ./diamond-cli getaccountaddress ««
To get a labelled wallet address just execute ./diamond-cli getaccountaddress <label>
To see the list of adresses and their balances just execute diamond-cli listaccounts
To send DMD to another wallet just execute ./diamond-cli sendtoaddress <address> <amount of DMD>
To stop the wallet just execute ./diamond-cli stop

Happy masternodding :)