

How to setup a Helix Masternode (HLIX Masternodes / Helix Blockchain)

Guide / Tutorial on how to setup a Helix Masternode (Helix Blockchain) on a Linux VPS.

Prerequisites:

- Ubuntu VPS from [Contabo](#) (cheapest VPS is enough)
- Helix Wallet on local Computer

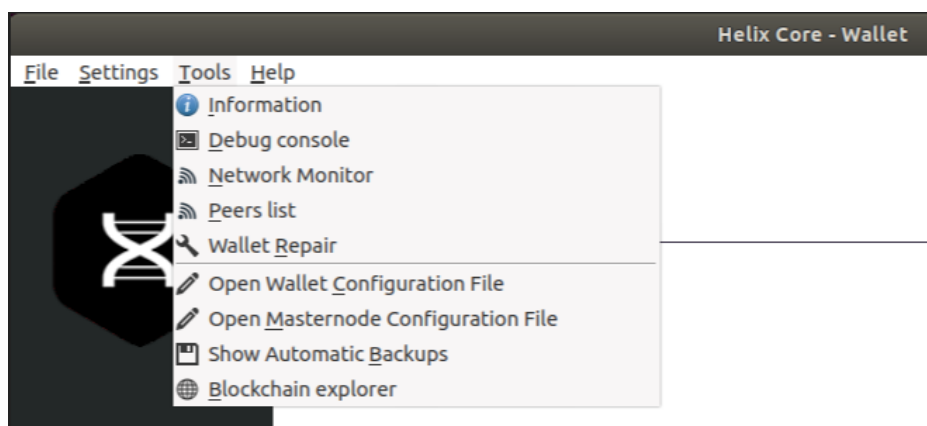
Definitions:

Controllers Wallet = Wallet on local Computer

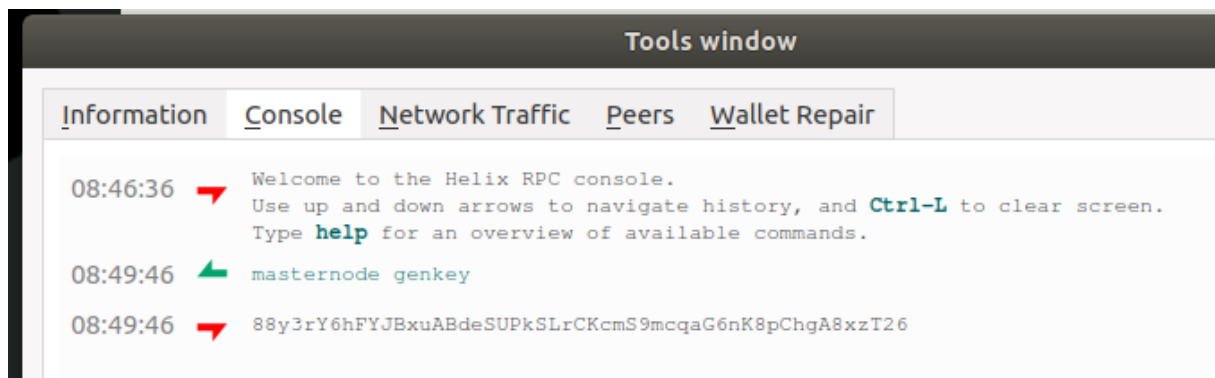
Masternode Wallet = Wallet on remote VPS Server

Helix Controllers Wallet Setup

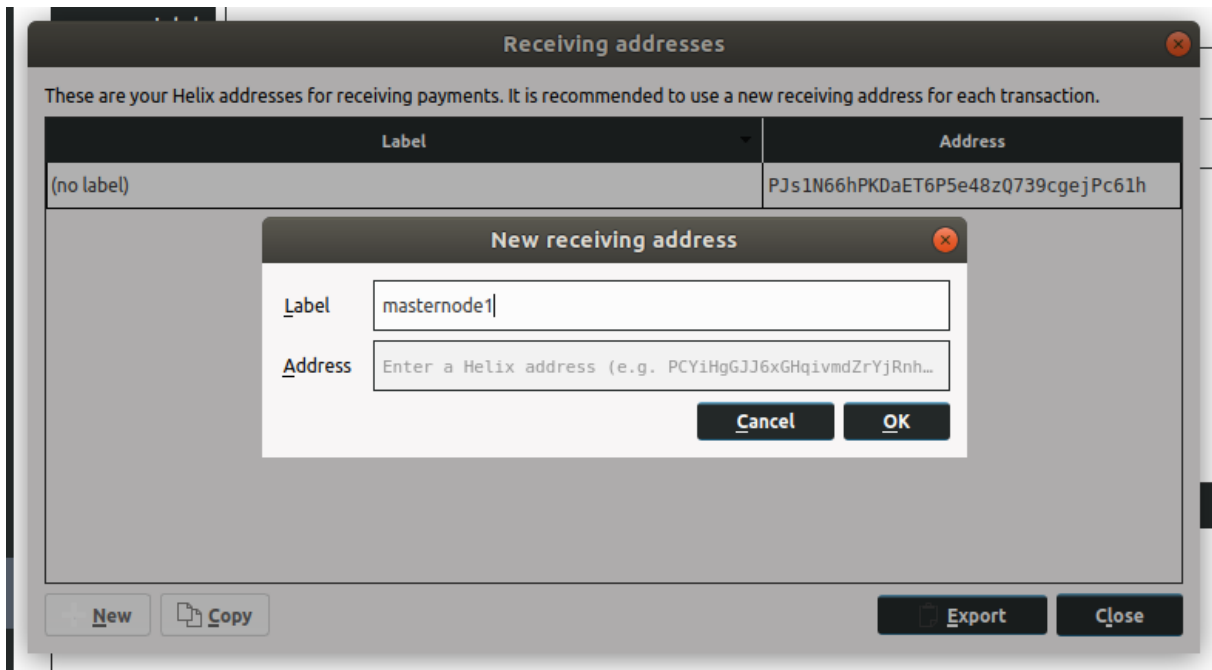
First, open Helix Wallet and go to “debug window”.



In this debug window, go to “Console” and type in “masternode genkey”. Save the output to a text file called “masternode.txt”.



Now create a new address called “Masternode1”



Then, go to tab “send” and send EXACTLY 10,000 HLIX to your Masternode1 address. Wait for 15 Confirmations.

Open the debug window again and type in “masternode outputs”. Save both values in the masternode.txt file.

Ubuntu VPS Setup

If you don't have a VPS already, get the 1GB Ram VPS from Vultr: [Rent VPS](#)

Install **Ubuntu 16.04 x64** OS onto it.

Connect to your Ubuntu VPS via SSH and update & upgrade the server first.

```
apt-get update
apt-get upgrade
```

Now add a user and add him in the sudoers group so he has root access.

```
adduser helix
adduser helix sudo
```

Now change to user “Helix” and setup SSH keys for enhanced Security.

```
su helix

sudo ssh-keygen -b 4096
cd .ssh
sudo cat id_rsa.pub >> authorized_keys
```

Now save the private key “id_rsa” to your clients computer so you can authenticate to the server with the SSH Certificate. (You must convert id_rsa to a “.ppk file in order to use the privatekey with Putty)

Restart the SSH Server and test if the authentication with the private key works.

```
sudo service ssh restart
```

If it works, edit the SSH config file to disable password authentication & root login.

```
sudo nano /etc/ssh/sshd_config
```

Change following Values in the file.

```
PasswordAuthentication no
UsePAM no
PermitRootLogin no
```

Helix Masternode Setup

First we must setup swap space, so we can compile Helix even with low ram. If we don't setup swap space and have low ram, the compiling process will probably fail.

RUN THIS AS ROOT USER!

```
fallocate -l 3G /swapfile
chmod 600 /swapfile
mkswap /swapfile
swapon /swapfile
echo -e "/swapfile none swap sw 0 0 \n" >> /etc/fstab
```

Now we install some dependencies.

From now on as Helix User!

```
sudo apt-get install -y pkg-config
sudo apt-get -y install build-essential autoconf automake libtool libboost-all-dev
libgmp-dev libssl-dev libcurl4-openssl-dev git
sudo add-apt-repository ppa:bitcoin/bitcoin
sudo apt-get update
sudo apt-get install libdb4.8-dev libdb4.8++-dev
```

Install Helix onto the ubuntu vps server.

Run following Commands to install git, compile software & more

```
cd
sudo git clone https://github.com/projecthelixcoin/Helix.git
cd helix
sudo chmod +x share/genbuild.sh
sudo chmod +x autogen.sh
sudo chmod 755 src/leveldb/build_detect_platform
sudo ./autogen.sh
sudo ./configure
sudo make
sudo make install
```

Now start the Helixd daemon for first time and save "rpcuser & rpcpassword" into a text file.

```
cd ~/helix/src
Helixd -daemon
```

Edit the "Helix.conf" file on the masternode vps server.

```
sudo nano ~/.helix/helix.conf
```

Paste this into it and adjust the values to your values. (masternodeprivkey is the value you got from “masternode genkey” in debug window)

```
rpcuser=anyuser
rpcpassword=anypassword
rpcallowip=127.0.0.1
staking=1
server=1
listen=1
daemon=1
logtimestamps=1
maxconnections=256
masternode=1
masternodeprivkey=xxxxxxxxxxxx
```

Now start the Helixd daemon again

```
cd ~/helix/src
helixd -daemon
```

Check info

```
helix-cli getinfo
```

If the output of the “getinfo” command seems good, go to the next Step.

Final Masternode Setup Step

Back on the local Computer, go to “%appdata%/helix/helix.conf” and add these 2 lines with your values. (You set rpcuser & rpcpassword on the vps)

```
rpcuser=YOURRPCUSERNAME
rpcpassword=YOURRPCPASSWORD
```

Now go to “%appdata%/helix/masternode.conf” and add the following lines (with your values)

```
MN1 123.220.42.69:37415 93HaYBVUCYjEMeeH1Y4sBGLALQZE1Yc1K64xiqqX37tGBDQL8Xg
2bcd3c84c84f87eaa86e4e56834c92927a07f9e18718810b92e0d0324456a67c 0
```

MN1 = Masternode alias

123:220.42.69:37415 = IP address & port of remote ubuntu masternode vps

93HaYBVUCYjEMeeH1Y4sBGLALQZE1Yc1K64xiqqX37tGBDQL8Xg = output of “masternode genkey” command

2bcd3c84c84f87eaa86e4e56834c92927a07f9e18718810b92e0d0324456a67c = 1. value of output of “masternode outputs” command

0 = 2. value of output from “masternode outputs” command in debug window

Now reopen the Helix Wallet, go to “Masternodes” Tab and click Start alias. Your remote Masternode should now be running!