

COLD WALLET + MASTERNODE SETUP ON LINUX + SENTINEL ON THE LINUX VPS

This tutorial shows the steps required to setup your IdaPay masternode on a Linux system while running a local cold wallet (Windows system here).

If you are lost and need help please consider helping me for my work by donating

Ida address: CqahpBzfmulg1sTKzEj5Lw8XUDhBvCWRpN

Let's get started!

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Starting your masternode

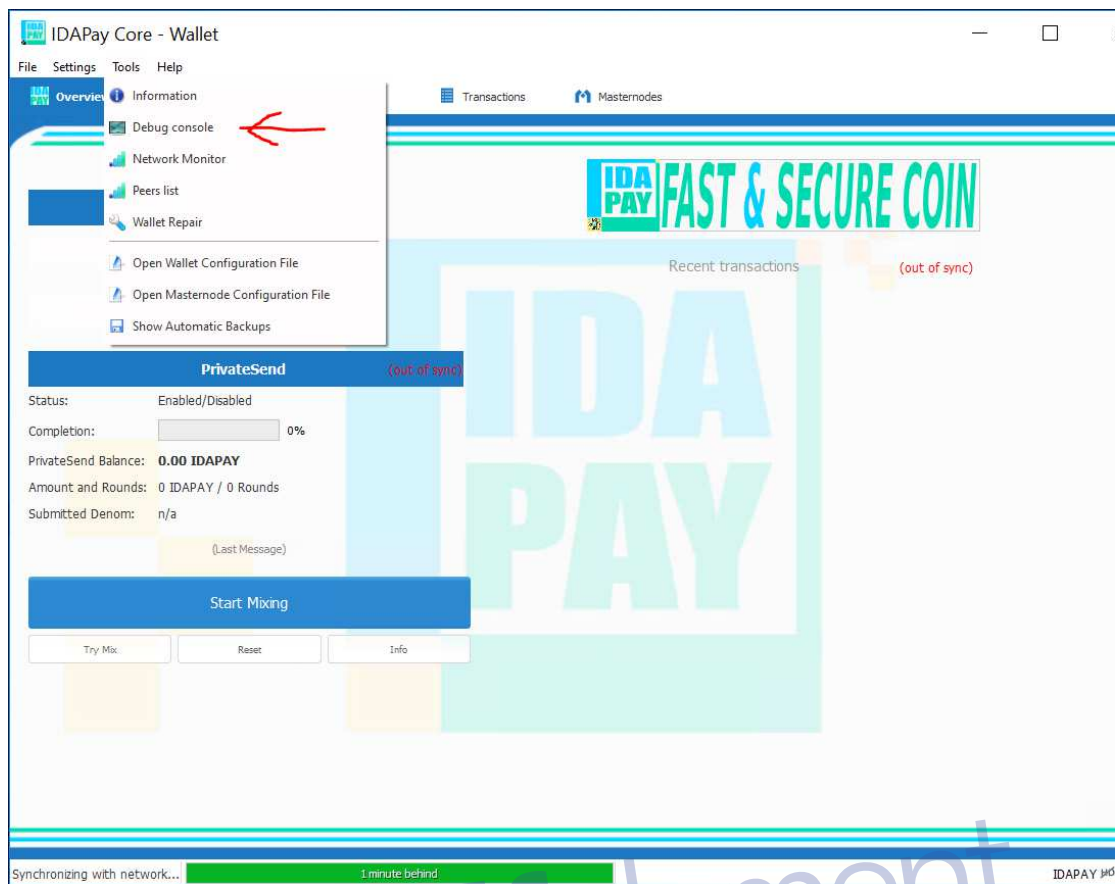
Linux server (e.g. Ubuntu 16.04 hosted on hetzner.cloud in this tutorial).

Windows Machine running idapay-qt.exe as local wallet.

Installing and setting up the sentinel on the linux VPS.

GENERATING YOUR MASTERNODE PRIVATE KEY

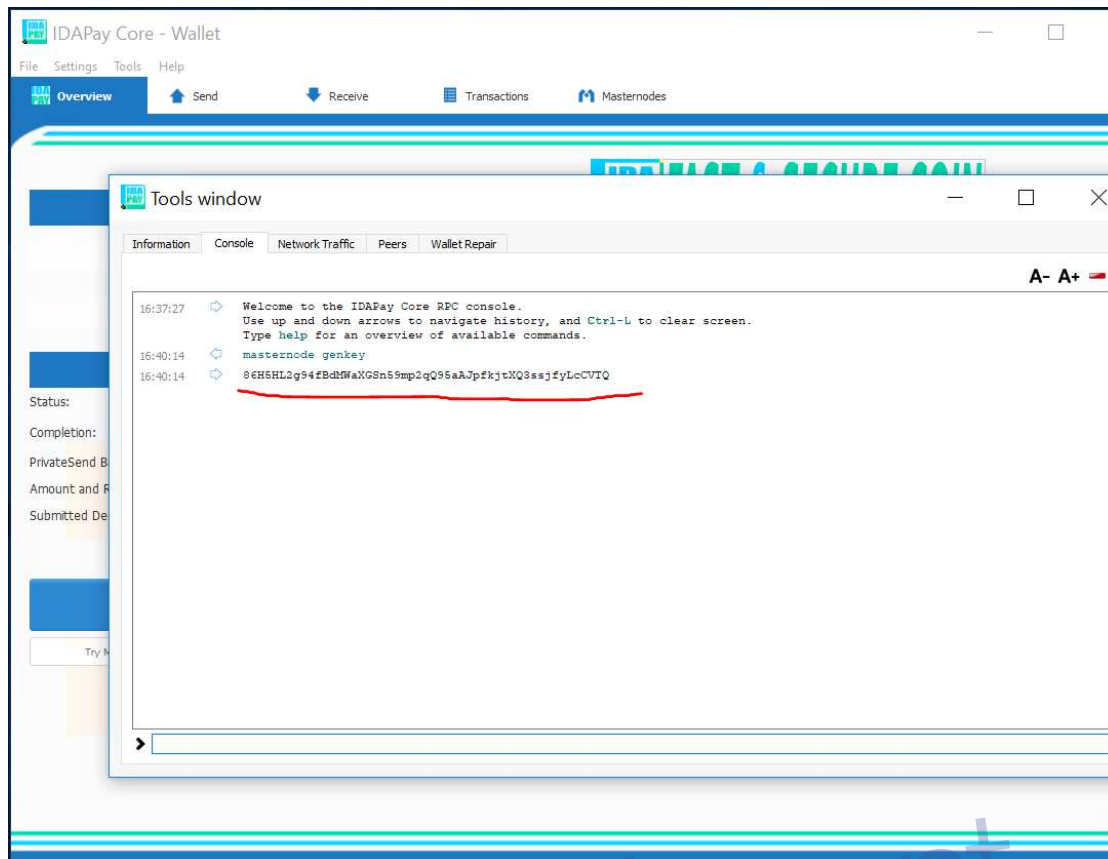
Open the Debug window from the Help > Debug Window menu.



Click on the Console tab and enter the following command:

"masternode genkey"

Please remember NEVER SHARE THIS KEY



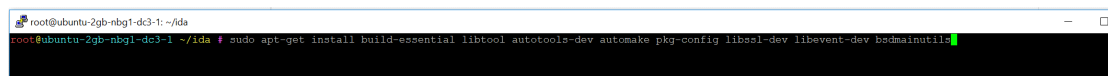
Keep the resulting MASTERNODE_PRIVATE_KEY as you will need it in following steps.

PREPARING THE SERVER

Open a shell and type the following commands to install the dependencies for the idapay daemon:

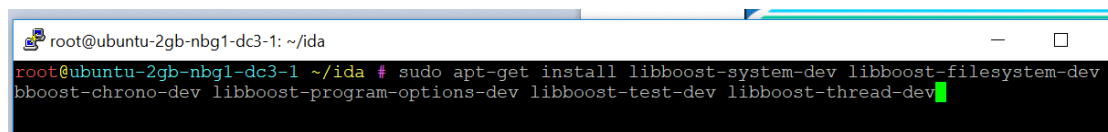
Build requirements:

```
sudo apt-get install build-essential libtool autotools-dev automake pkg-config libssl-dev libevent-dev bsdmainutils
```



On at least Ubuntu 14.04+ and Debian 7+ there are generic names for the individual boost development packages, so the following can be used to only install necessary parts of boost:

```
sudo apt-get install libboost-system-dev libboost-filesystem-dev libboost-chrono-dev libboost-program-options-dev libboost-test-dev libboost-thread-dev
```



```
sudo apt-get install libboost-all-dev
```

```
root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo apt-get install libboost-all-dev
```

BerkeleyDB is required for the wallet. db4.8 packages are available here. You can add the repository and install using the following commands:

```
sudo add-apt-repository ppa:bitcoin/bitcoin
```

```
sudo apt-get update
```

```
sudo apt-get install libdb4.8-dev libdb4.8++-dev
```

```
Open a shell and type the following commands to install the dependencies for the idapay

root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo add-apt-repository ppa:bitcoin/bitcoin
Stable Channel of bitcoin-qt and bitcoind for Ubuntu, and their dependencies

Note that you should prefer to use the official binaries, where possible, to limit trust in Launchpad/
the PPA owner.

No longer supports precise, due to its ancient gcc and Boost versions.
More info: https://launchpad.net/~bitcoin/+archive/ubuntu/bitcoin
Press [ENTER] to continue or ctrl-c to cancel adding it

gpg: keyring '/tmp/tmp6t9flk45/secring.gpg' created
gpg: keyring '/tmp/tmp6t9flk45/pubring.gpg' created
gpg: requesting key 8842CE5E from hkp server keyserver.ubuntu.com
gpg: /tmp/tmp6t9flk45/trustdb.gpg: trustdb created
gpg: key 8842CE5E: public key "Launchpad PPA for Bitcoin" imported
gpg: no ultimately trusted keys found
gpg: Total number processed: 1
gpg:      imported: 1 (RSA: 1)
OK
root@ubuntu-2gb-nbg1-dc3-1 ~/ida #
```

```
root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo apt-get update
```

```
root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo apt-get install libdb4.8-dev libdb4.8++-dev
```

ZMQ dependencies:

```
sudo apt-get install libzmq3-dev
```

```
root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo apt-get install libzmq3-dev
```

Optional:

```
sudo apt-get install libminiupnpc-dev
```

```
root@ubuntu-2gb-nbg1-dc3-1: ~/ida
root@ubuntu-2gb-nbg1-dc3-1 ~/ida # sudo apt-get install libminiupnpc-dev
```

Next you need to download the latest version of the daemon wallet form the official idapay github page .

<https://github.com/idapay/idapay/releases>

In this case i am using IdaPay Release v0.1.3

wget <https://github.com/idapay/idapay/releases/download/v0.1.3/IdaPay-Ubuntu16.04-v0.1.3.tar.gz>

```

root@ubuntu-2gb-nbg1-dc3-1: ~
root@ubuntu-2gb-nbg1-dc3-1 ~ # wget https://github.com/idapay/idapay/releases/download/v0.1.3/IdaPay-Ubuntu16.04-v0.1.3.tar.gz
--2018-03-03 17:53:31-- https://github.com/idapay/idapay/releases/download/v0.1.3/IdaPay-Ubuntu16.04-v0.1.3.tar.gz
Resolving github.com (github.com)... 192.30.253.112, 192.30.253.113
Connecting to github.com (github.com)|192.30.253.112|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://github-production-release-asset-2e65be.s3.amazonaws.com/123428967/d3fd53ec-1f30-11e8-835f-ca9d27651b28?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A22P201803032Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20180303T165331Z&X-Amz-Expires=300&X-Amz-Signature=c48d53f187919d8daaf75a1ae25006130d5c41da46b4ec554882a06b06739ed54X-Amz-SignedHeaders=host&actor_id=0&response-content-disposition=attachment%3B%20filename%3DIdaPay-Ubuntu16.04-v0.1.3.tar.gz&response-content-type=application%2Foctet-stream [following]
--2018-03-03 17:53:31-- https://github-production-release-asset-2e65be.s3.amazonaws.com/123428967/d3fd53ec-1f30-11e8-835f-ca9d27651b28?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=AKIAIWNJYAX4CSVEH53A22P201803032Fus-east-1%2F%3%2Faws4_request&X-Amz-Date=20180303T165331Z&X-Amz-Expires=300&X-Amz-Signature=c48d53f187919d8daaf75a1ae25006130d5c41da46b4ec554882a06b06739ed54X-Amz-SignedHeaders=host&actor_id=0&response-content-disposition=attachment%3B%20filename%3DIdaPay-Ubuntu16.04-v0.1.3.tar.gz&response-content-type=application%2Foctet-stream
Resolving github-production-release-asset-2e65be.s3.amazonaws.com (github-production-release-asset-2e65be.s3.amazonaws.com)... 54.231.40.59
Connecting to github-production-release-asset-2e65be.s3.amazonaws.com (github-production-release-asset-2e65be.s3.amazonaws.com)|54.231.40.59|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 44918498 (43M) [application/octet-stream]
Saving to: 'IdaPay-Ubuntu16.04-v0.1.3.tar.gz'

IdaPay-Ubuntu16.04-v0.1.3.tar.gz 100%[=====] 42.84M 165KB/s in 5m 27s
2018-03-03 17:58:59 (134 KB/s) - 'IdaPay-Ubuntu16.04-v0.1.3.tar.gz' saved [44918498/44918498]

root@ubuntu-2gb-nbg1-dc3-1 ~ #

```

Next step you need to extract ne tar.gz archive with the next command:

tar -xvzf IdaPay-Ubuntu16.04-v0.1.3.tar.gz

```

root@ubuntu-2gb-nbg1-dc3-1: ~
root@ubuntu-2gb-nbg1-dc3-1 ~ # tar -xvzf IdaPay-Ubuntu16.04-v0.1.3.tar.gz
IdaPay-Ubuntu16.04-v0.1.3/IdaPay
IdaPay-Ubuntu16.04-v0.1.3/IdaPay-cli
IdaPay-Ubuntu16.04-v0.1.3/IdaPay-Ubuntu16.04-v0.1.3/
root@ubuntu-2gb-nbg1-dc3-1 ~ # ls
IdaPay-Ubuntu16.04-v0.1.3  IdaPay-Ubuntu16.04-v0.1.3.tar.gz
root@ubuntu-2gb-nbg1-dc3-1 ~ #

```

STARTING THE DAEMON

We initially run the daemon so it creates the initial configuration files:

cd IdaPay-Ubuntu16.04-v0.1.3/

./idapayd

```

root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3
root@ubuntu-2gb-nbg1-dc3-1 ~ # cd IdaPay-Ubuntu16.04-v0.1.3/
root@ubuntu-2gb-nbg1-dc3-1 ~ # ./IdaPay-Ubuntu16.04-v0.1.3 # ./idapayd
IDAPay Core server starting
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 #

```

CONFIGURING THE DAEMON

You will need the following information in the next step:

EXTERNAL_IP: Your masternode public IP (if you don't know it simply

type the command curl ipinfo.io/ip in the shell to get it).

```

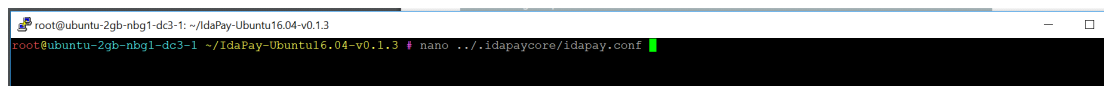
root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # curl ipinfo.io/ip
195.201.88.215
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 #

```

MASTERNODE_PRIVATE_KEY: The key generated from Windows wallet in first step.

Type the following command to edit the configuration file (using nano editor).

`nano ../idapaycore/idapay.conf`



Edit the config file with all the information we collected in the previews steps

`port=19285` (must be this port)

`masternode=1`

`masternodeprivkey=85zhkHsabVuKNXyn6AK7N4TAu4Uss4soYVUEqEMDoCLakMihvg3` (we collected that key from your windows wallet in previews steps)

`daemon=1`

`server=1`

`externalip=195.201.88.215:19285` (we got the VPS external ip with the curl `ipinfo.io/ip` command in the previews steps)

`listen=1`

`rpcuser=anyuseryouwant`

`rpcpassword=anypasswordyouwant`

`rpccallowip=127.0.0.1`

`rpccallowip=81.157.7.157` (this is the ip on your windows computer to find it if you dont know it just google "what is my ip")

`rpcport=12958`

`rcpconnect=127.0.0.1`

`rcpthreads=8`

`discover=1`

So your config looks like that:

```

root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3
GNU nano 2.5.3 File: ../idapaycore/idapay.conf
port=19285 (must be this port)
masternode=1
masternodeprivkey=85zhkhHsabVuKXNyn6AK7N4TAu4Uss4soYVuEgEMDoCLakMihvg3 (we collected that key from your windows wallet in previews steps)
daemon=1
server=1
externalip=195.201.88.215:19285 (we got the VPS external ip with the curl ipinfo.io/ip command in the previews steps)
listen=1
rpcuser=anyuseryouwant
rpcpassword=anypasswordyouwant
rpccallowip=127.0.0.1
rpccallowip=81.157.7.157 (this is the ip on your windows computer to find it if you dont know it just google "what is my ip")
rpcport=19285
rpcconnect=127.0.0.1
rpcthreads=8
discover=1

```

Now you can exit the editor with Ctrl+x followed by Y to confirm

We can now start the daemon again and it should print the message below:

`./idapayd`

```

root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3
root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3 # ./idapayd
IDAPay Core server starting
root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3 #

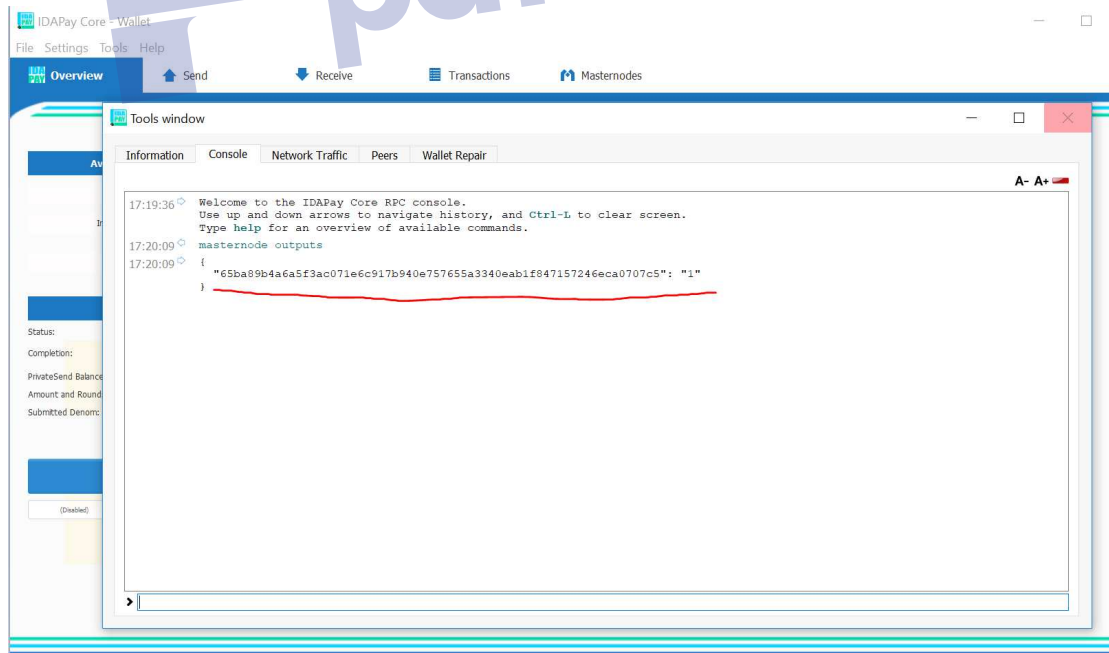
```

TRANSFERRING THE FUNDS TO LOCAL (COLD) WALLET

Back to the local wallet on Windows, you can now transfer the funds to it. You can use the default address or use the Receive Tab to create a new address. Send exactly 1500 IDA to this address.

Keep track of the transaction id. You can retrieve the transaction id if you go to Tools-> Debug console and type:

"masternode outputs"



CONFIGURING THE MASTERNODE

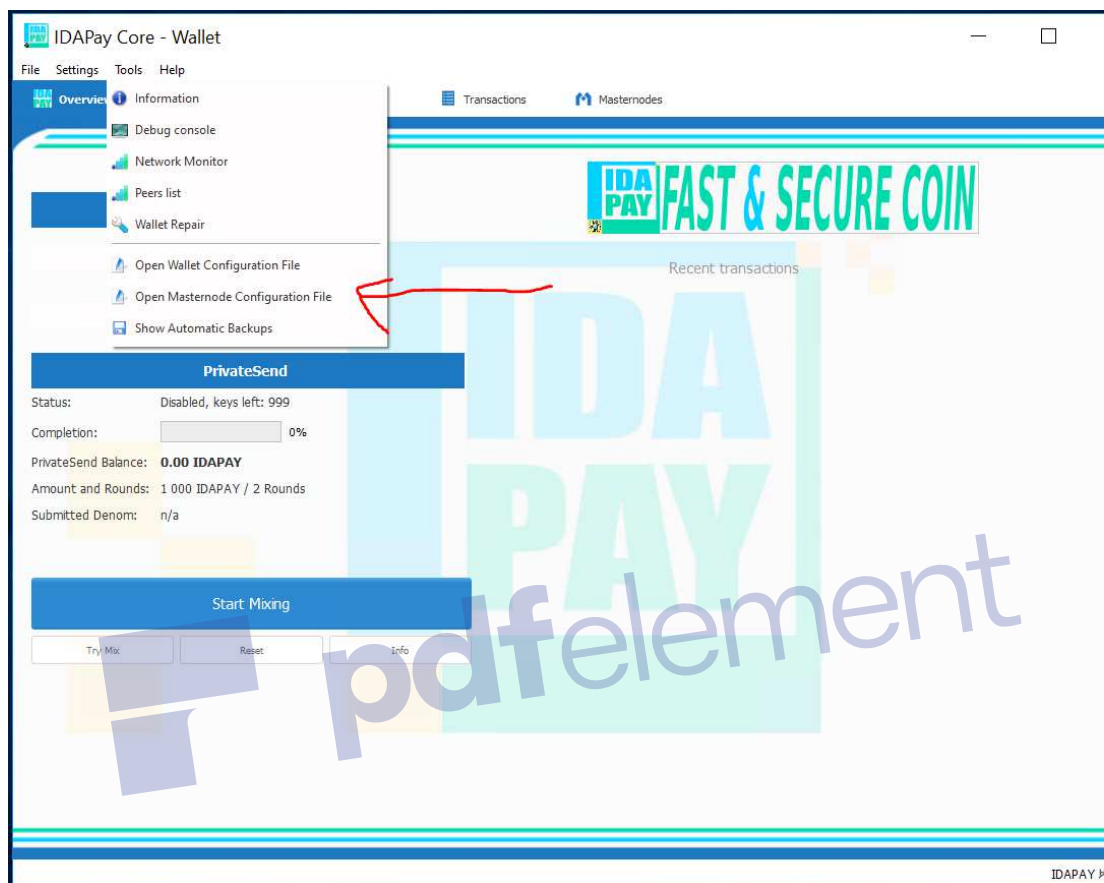
You will need the following information to complete the next step:

MASTERNODE_PRIVATE_KEY: The key generated from Windows wallet in first step.

TRANSACTION_ID: The transaction ID from the funds generated in previous step.

OUTPUT: The number (1 or 0) printed after the Transaction ID in the previous step

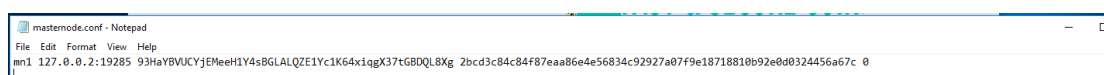
Next step will be to open the masternode config file by clicking tools -> open masternode configuration file :



Copy the line below (Replace with information gathered previously):

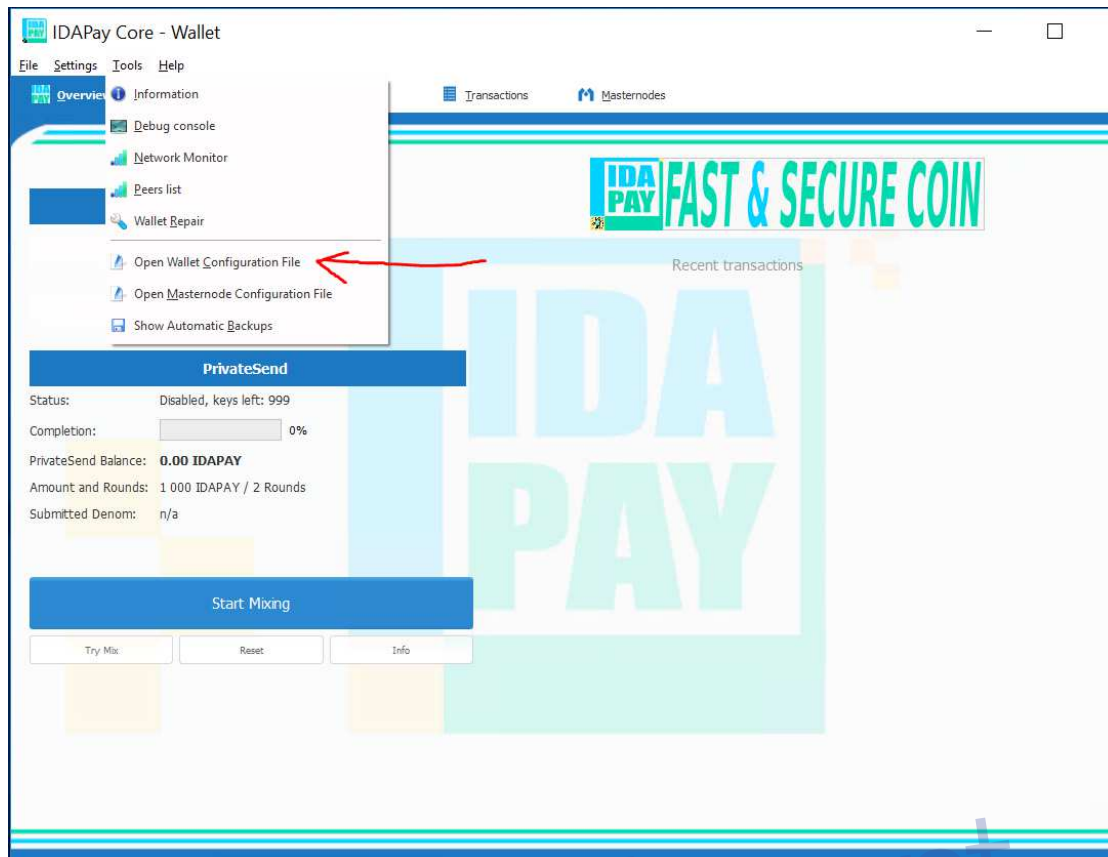
mn1 EXTERNAL_IP:19285 MASTERNODE_PRIVATE_KEY TRANSACTION_ID OUTPUT

It should look like this:



FINALIZING THE WALLET CONFIGURATION

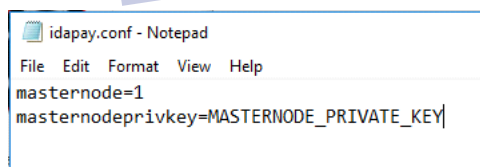
menu Settings > Open wallet configuration and add the following entries:



masternode=1

masternodeprivkey=MASTERNODE_PRIVATE_KEY

The file should look like this:

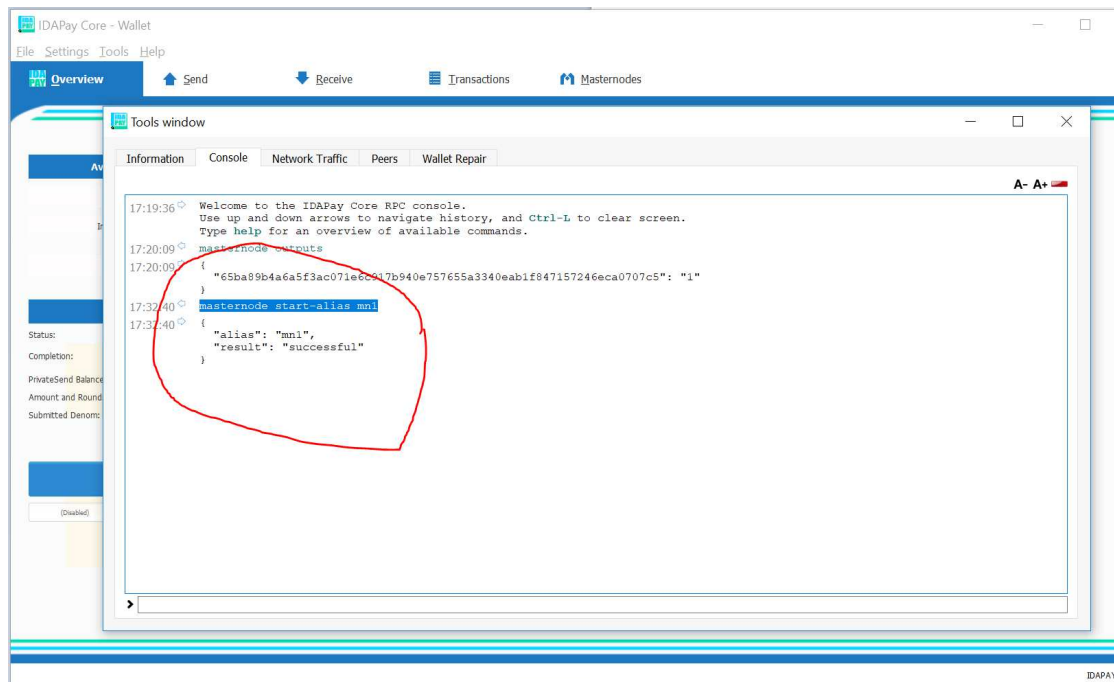


STARTING YOUR MASTERNODE

Restart idapay-qt.exe to pick up the configuration changes.

Using the Debug Window on local wallet, type the following command:

masternode start-alias mn1



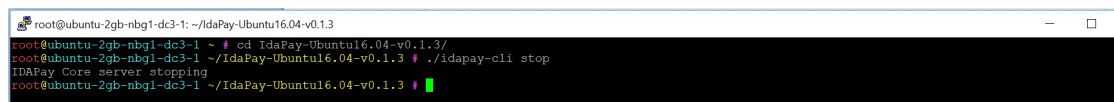
At that point your masternode will show watchdog expired . Please do not panic this is normal all it means is we need to go back to the VPS and install the sentinel watchdog.

So back on the VPS.

Before starting the steps make sure to restart your masternode with reindex so you are using the fresh blockchain. Delete mncache.dat and mnpayments.dat from your idapaycore folder before reindexing.

```
cd IdaPay-Ubuntu16.04-v0.1.3/
```

```
./idapay-cli stop
```

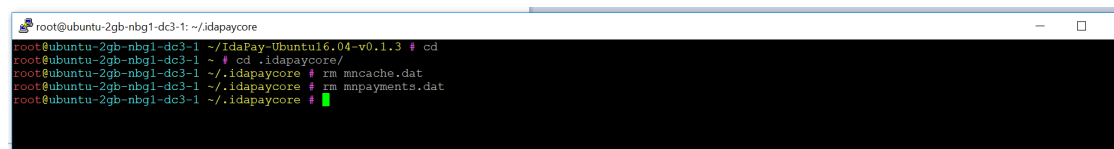


```
cd
```

```
cd .idapaycore/
```

```
rm mncache.dat
```


```
rm mnpayments.dat
```



cd

cd IdaPay-Ubuntu16.04-v0.1.3/

./idapayd -daemon -reindex

 root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3

```
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # cd
root@ubuntu-2gb-nbg1-dc3-1 ~ # cd IdaPay-Ubuntu16.04-v0.1.3/
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # ./idapayd -daemon -reindex
IDaPay Core server starting
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # █
```

Wait for the full resync to the latest block. You can check regularly with :

./idapay-cli getinfo

```
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # ./idapayd getinfo
Error: There is no RPC client functionality in idapayd anymore. Use the idapay-cli utility instead.
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # ./idapay-cli getinfo
{
  "version": 120203,
  "protocolversion": 70208,
  "walletversion": 61000,
  "balance": 0.00000000,
  "privatesend_balance": 0.00000000,
  "blocks": 1464,
  "timeoffset": 0,
  "connections": 9,
  "proxy": "",
  "difficulty": 583277.419371267,
  "testnet": false,
  "keypoololdest": 1520088856,
  "keypoolsize": 999,
  "paytxfee": 0.00000000,
  "relayfee": 0.00001000,
  "errors": ""
}
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # █
```

Once your wallet is fully synced you are now ready to follow the steps below:

Install the prerequisites:

sudo apt-get update

sudo apt-get install -y git python-virtualenv

```
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # sudo apt-get update
Hit:1 http://mirror.hetzner.de/ubuntu/packages xenial InRelease
Hit:2 http://mirror.hetzner.de/ubuntu/packages xenial-updates InRelease
Hit:3 http://mirror.hetzner.de/ubuntu/packages xenial-backports InRelease
Hit:4 http://mirror.hetzner.de/ubuntu/packages xenial-security InRelease
Hit:5 http://ppa.launchpad.net/bitcoin/bitcoin/ubuntu xenial InRelease
Get:6 http://security.ubuntu.com/ubuntu xenial-security InRelease [102 kB]
Hit:7 http://archive.ubuntu.com/ubuntu xenial InRelease
Get:8 http://archive.ubuntu.com/ubuntu xenial-updates InRelease [102 kB]
Hit:9 http://archive.ubuntu.com/ubuntu xenial-backports InRelease
Fetched 204 kB in 0s (355 kB/s)
Reading package lists... Done
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # sudo apt-get install -y git python-virtualenv █
```

If you are not already there, navigate to your .idapaycore folder:

cd

cd .idapaycore/

```
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # cd
root@ubuntu-2gb-nbg1-dc3-1 ~ # cd .idapaycore/
root@ubuntu-2gb-nbg1-dc3-1 ~/.idapaycore # █
```

Clone sentinel, switch to the sentinel directory

git clone <https://github.com/vivocoin/sentinel.git>

cd sentinel

```
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore # git clone https://github.com/vivocoin/sentinel.git
Cloning into 'sentinel'...
remote: Counting objects: 73, done.
remote: Total 73 (delta 0), reused 0 (delta 0), pack-reused 73
Unpacking objects: 100% (73/73), done.
Checking connectivity... done.
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore # cd sentinel/
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel #
```

Create virtual python environment

virtualenv venv

```
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel # virtualenv venv
Running virtualenv with interpreter /usr/bin/python2
New python executable in /root/.idapaycore/sentinel/venv/bin/python2
Not overwriting existing python script /root/.idapaycore/sentinel/venv/bin/python (you must use /root/.idapaycore/sentinel/venv/bin/python2)
Installing setuptools, pkg_resources, pip, wheel...done.
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel #
```

If this command fails try installing this package :) :

sudo apt-get install -y virtualenv

Install sentinel dependencies

venv/bin/pip install -r requirements.txt

```
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel # venv/bin/pip install -r requirements.txt
```

Test sentinel is alive and talking to the still syncing wallet

Open sentinel.conf:

"nano sentinel.conf"

remove the comment and edit the line to point sentinel to your idapay config file

vivo_conf=/root/.idapaycore/idapay.conf

the conf should look like this:

```

root@ubuntu-2gb-nbg1-dc3-1: ~/idapaycore/sentinel
GNU nano 2.5.3 File: sentinel.conf Modified
# specify path to vivo.conf or leave blank
# default is the same as VivoCore
vivo_conf=/root/.idapaycore/idapay.conf
# valid options are mainnet, testnet (default=mainnet)
network=mainnet
#network=testnet
# database connection details
db_name=database/sentinel.db
db_driver=sqlite

```

Now you can exit the editor with Ctrl+x and confirm with Y.

Next step is to run the sentinel watchdog:

venv/bin/python bin/sentinel.py

You should see: "idapayd not synced with network! Awaiting full sync before running Sentinel."

This is exactly what we want to see at this stage

Wait until the reindex has complete and the wallet has sync'd

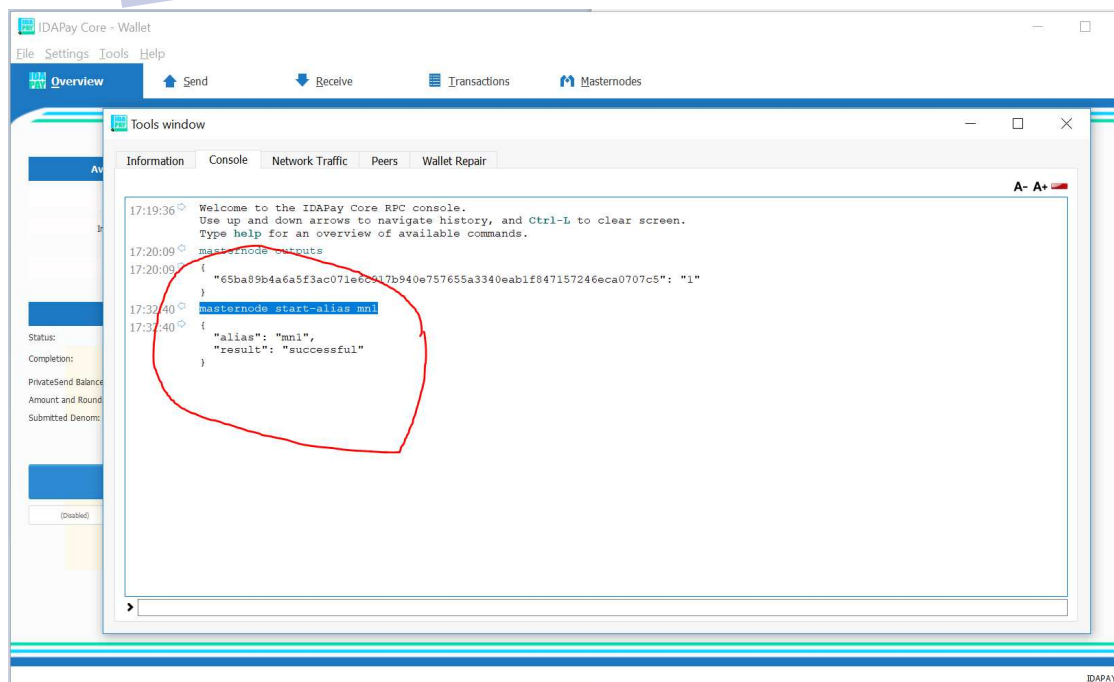
At this point, your remote masternode is synchronized and chatting with the network

but is not accepted as a masternode because it hasn't been introduced to the network

by your collateral.

You may now start your masternode! Go back to your local wallet, open the debug console, and run these commands (LABEL is the name you used for your MN in the masternode.conf):

"masternode start-alias mn1"



This will start your masternode (hopefully :))

Test sentinel has nothing bad to say:

You're needed back in Sentinel directory! :D

cd

cd .idapaycore/sentinel/



```

root@ubuntu-2gb-nbg1-dc3-1: ~/idapaycore/sentinel
root@ubuntu-2gb-nbg1-dc3-1: ~ # cd .idapaycore/sentinel/
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel #

```

At this point, running:

venv/bin/python bin/sentinel.py

should return nothing but silence. This is how you know it's working, and your masternode is working.



```

root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel # venv/bin/python bin/sentinel.py
root@ubuntu-2gb-nbg1-dc3-1: ~/.idapaycore/sentinel #

```

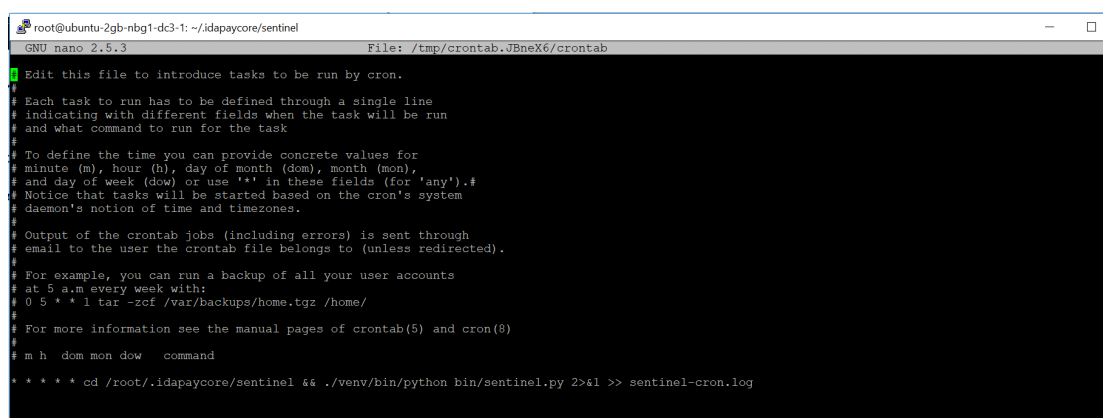
Create a crontab entry to wake sentinel every five minutes

crontab -e

Choose nano as your editor(option 2). Add this line to the end of the file.

***** cd /root/.idapaycore/sentinel && ./venv/bin/python bin/sentinel.py 2>&1 >>
sentinel-cron.log

Your crontab should look like that.



```

GNU nano 2.5.3 File: /tmp/crontab.JBneX6/crontab
Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
m h dom mon dow command
***** cd /root/.idapaycore/sentinel && ./venv/bin/python bin/sentinel.py 2>&1 >> sentinel-cron.log

```

Now exit the editor with Ctrl+x and confirm with Y

Lets check if everything is working

cd

cd IdaPay-Ubuntu16.04-v0.1.3/

./idapay-cli masternode status

```
root@ubuntu-2gb-nbg1-dc3-1: ~/IdaPay-Ubuntu16.04-v0.1.3
root@ubuntu-2gb-nbg1-dc3-1 ~# ./idapaycore/sentinel # cd
root@ubuntu-2gb-nbg1-dc3-1 ~# cd IdaPay-Ubuntu16.04-v0.1.3/
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 # ./idapay-cli masternode status
{
  "outpoint": "69ba89b4a6a5f3ac071e6c917b940e757655a3340eab1f847157246eca0707c5-1",
  "service": "195.201.88.215:19285",
  "payee": "Cs6h824GF4CanvDW4XwugDptLlaErACPLT",
  "status": "Masternode successfully started"
}
root@ubuntu-2gb-nbg1-dc3-1 ~/IdaPay-Ubuntu16.04-v0.1.3 #
```

And that's it, you've made it! You can feel like a Crypto-GOD, rocking your new Masternode!

This guide was created by Valentin Danev (pool.ddclub.org)

If you found my work of any help at all please consider donating that will help me to keep working and helping the community my donations ida address is :

CqahpBzfmugt1sTKzEj5Lw8XUDhBvCWRpN







