MASTERNODE
Setup Guide

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Linux Setup

This section describes the build process for the Apollon wallet on a typical Ubuntu 16.x system.

Prerequisites

- up and running Ubuntu machine or VPS
- console access to said machine (e.g. putty on Windows)
- 25.000 XAP

Updates and dependencies

Issue the following commands to update your package sources:

```
sudo apt-get update && sudo apt-get upgrade && sudo apt-get dist-upgrade -y
```

The following commands will install all required dependencies:

```
sudo apt-get install nano htop git software-properties-common build-essential libtool autotools-dev pkg-config libssl-dev libboost-all-dev libevent-dev libminiupnpc-dev libgmp3-dev autoconf automake -y
```

Add the Bitcoin package repository:

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

Update sources and install the libdb dependencies:

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

Building the wallet

Now we are ready to clone the Apollon sources.

```
git clone
https://github.com/apollondeveloper/ApollonCoin
```

Navigate to the src directory and start compiling the wallet. This step will take from a few minutes up to half an hour, based on your hardware resources:

```
cd ApollonCoin/src
make -f makefile.unix USE_UPNP=-
```

ATTENTION: If you get the following error, *„virtual memory exhausted: Cannot allocate memory"* your machine lacks physical memory. To resolve this, follow the steps in the *Resolving issues* chapter of this document. Then reboot your Linux machine and reenter the previous commands.

Starting the wallet

The build-process should be finished within a few minutes. After that, start the Apollon daemon:

```
./Apollond
```

The daemon will output the path to your Apollon configuration file as well as a random generated password for RPC Access:

```
Error: To use Apollond, you must set a rpcpassword in the
configuration file:
/<path>/.Apollon/Apollon.conf
It is recommended you use the following random password:
rpcuser=Apollonrpc
rpcpassword=<random_password>
```

Edit the Apollon.conf file which should already be created on the path mentioned in the error Message:

```
nano /<path>/.Apollon/Apollon.conf
```

Add the rpcuser and rpcpassword lines that were generated by the error message. Feel free to change both values if you want to.

rpcuser=Apollonrpc
rpcpassword=<password>

At this point you should be able to start the daemon without any further errors:

```
./Apollond
```

You will not see any messages at this point.

Masternode setup

Now open a second terminal window and navigate to the Apollon source directory to create your Masternode key:

```
cd ApollonCoin/src
./Apollond masternode genkey
```

Save the generated private key because we will need it in a moment.

To start a Apollon Masternode, you need 25.000 XAP in your wallet. To get a wallet address, execute the following command:

```
./Apollond getaccountaddress masternodewallet
```

You need to send exactly 25.000 XAP to the address that was printed by the last command.
ATTENTION: when sending the required amount, be careful that the transaction fees are not substracted from the amount sent.

After sending the funds to your new masternode wallet, check the available funds. This requires 16 confirmations from the network:

```
./Apollond getreceivedbyaddress
<your_masternode_address>
```

The output should be exact 25000.00000000.

It is recommended to encrypt your wallet. Do this by issuing the following command:

```
./Apollond encryptwallet <your_wallet_password>
```

The Apollon daemon will be stopped at this point. Before you start it again, add your masternode details to the Apollon.config file. You will need the generated private key from the *genkey* step at this point:

```
Nano /<path>/.Apollon/Apollon.conf
```

Add the following rows to the end of the file:

```
listen=1
staking=0
port=12117
masternode=1
masternodeaddr=<your_ip_address>:12117
masternodeprivkey=<masternode_private_key>
```

Now restart the Apollon daemon in the first terminal window:

```
./Apollond
```

Open the second terminal window and start your masternode by entering the following commands:

```
./Apollond masternode start <your_wallet_password>
```

Congratulations! Your new Apollon Masternode is now up and running. You can check it by listing all Masternodes currently online. The list should contain the IP-Address of your machine:

```
./Apollond masternode list
```

Resolving issues

virtual memory exhausted

1. Setup more swap space by issuing the following commands:

```
cd /
sudo fallocate -l 4G /swapfile
sudo chmod 600 /swapfile
sudo mkswap /swapfile
sudo swapon /swapfile
```

2. Edit /etc/sysctl.conf:

```
sudo nano /etc/sysctl.conf
```

Add the following line tot he bottom of the file:

vm.swappiness=10

3. Edit /etc/fstab

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

Add the following line tot he bottom of the file:

/swapfile none swap sw 0 0

4. Reboot your machine

```
reboot
```

Windows Setup

This section describes the Windows setup of an Apollon Masternode using the precompiled Apollon-QT wallet.

Prerequisites

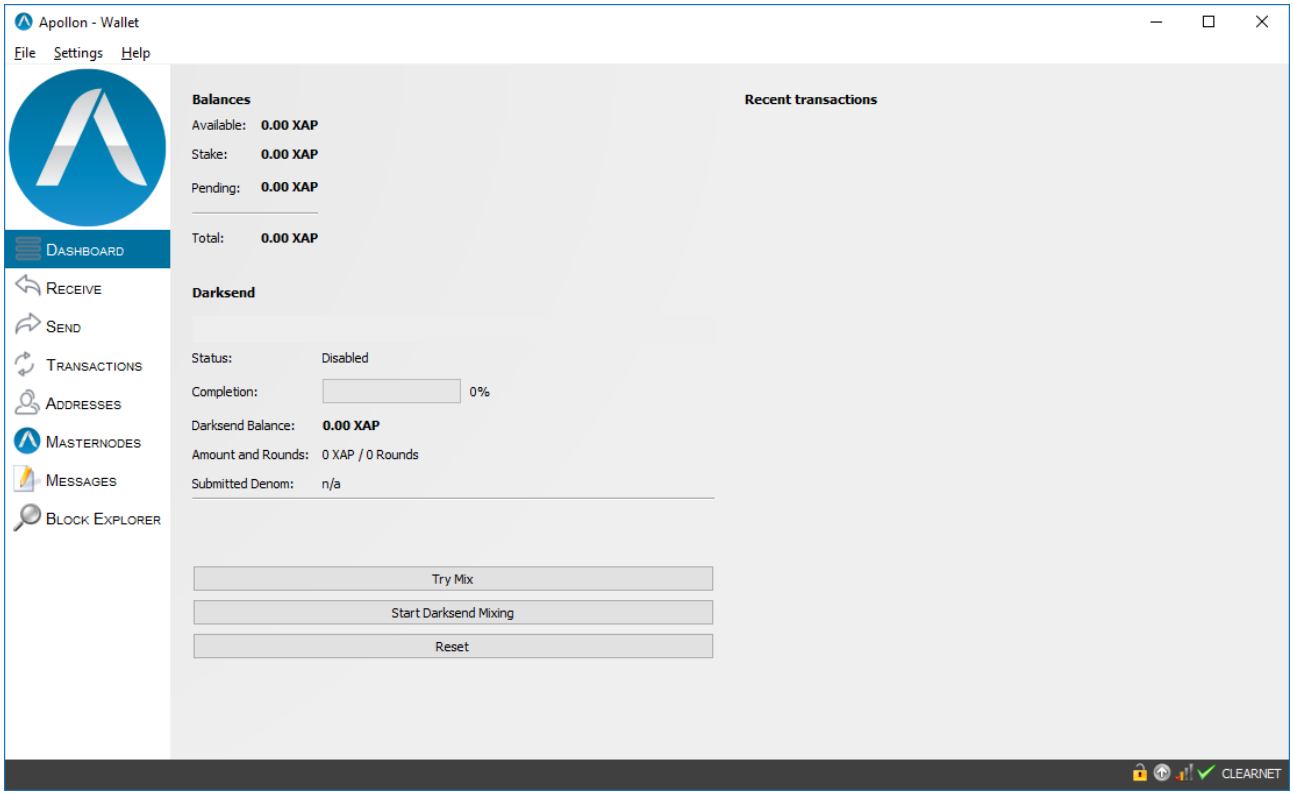
- A Windows machine running Windows 7/8/10
- Permissions to edit firewall settings
- 25.000 XAP

Starting the Wallet

Download the latest wallet executable from our Github Repository (https://github.com/apollondeveloper/ApollonCoin/releases) and save it to a local folder of your choice.

Run the Apollon-qt.exe. When your firewall or anti-virus pops up, allow connections to external networks.

After starting the wallet for the first time, wait for the blockchain to be synchronized. The App should look like this after the first startup:



Masternode setup

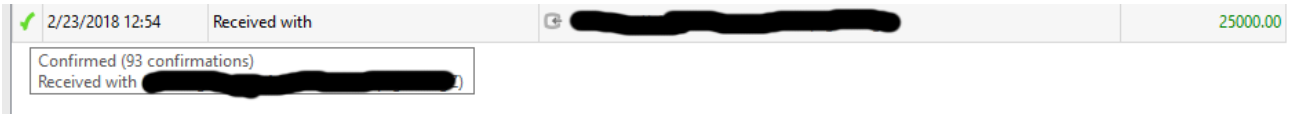
Now open the console window by navigating to Help -> Debug Window -> "Console" Tab:

Enter the following command into the Textbox at the bottom of this window:

`getaccountaddress 0`
This is the deposit address for your initial masternode funds.

You need to send exactly 25.000 XAP to the address that was printed by the last command.
ATTENTION: when sending the required amount, be careful that the transaction fees are not substracted from the amount sent.

After sending the funds to your new masternode wallet, the amount will show up in your wallet dashboard. The masternode cannot be started until the transaction has 16 confirmations. You can check the confirmation count in the "Transactions" view:



In the meantime, open the debug console again and type in the following command:
`masternode genkey`

This is your masternode private key.

Now edit the Apollon.conf file in your Roaming AppData Folder with a text editor of your choice:
%APPDATA%\Apollon\Apollon.conf

The file should be empty. Enter the following lines:

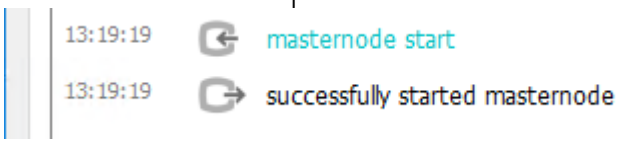
```
rpcuser=<choose_freely>
rpcpassword=<choose_freely>
allowip=127.0.0.1
listen=1
staking=0
port=12117
masternode=1
masternodeaddr=<your_ip_address>:12117
masternodeprivkey=<masternode_private_key>
```

Save and close the file and restart your wallet.

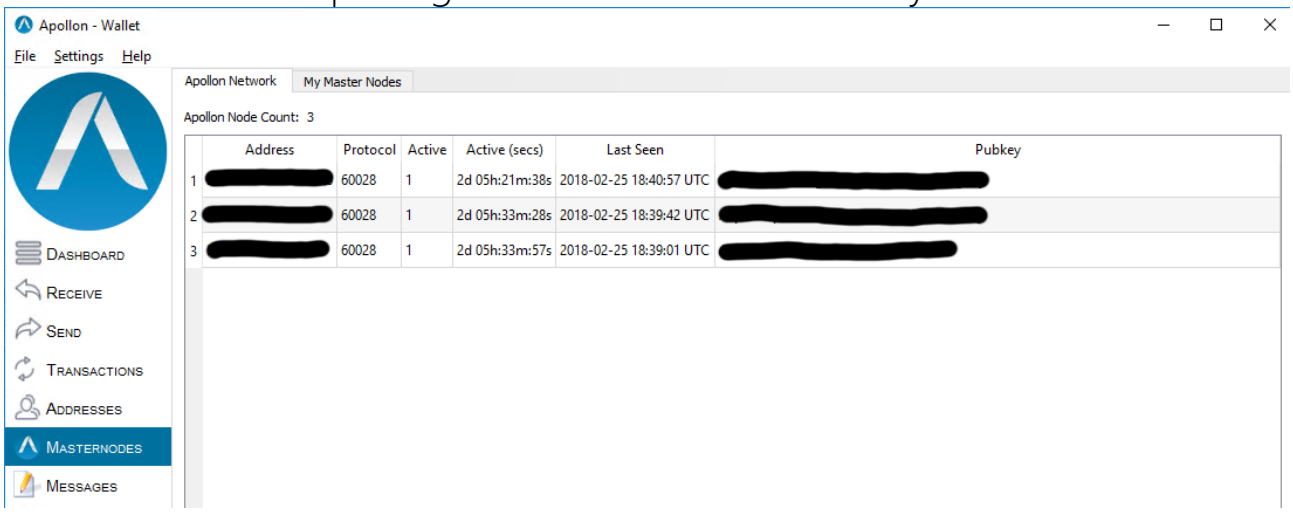
Open the Debug Console again and type in the following Command:

```
masternode start
```

The console output should look like this:



Congratulations! Your new Apollon masternode is now up and running. You can check it opening the *Masternodes* view of your wallet.



Support

If you need further assistance, join our Discord (https://discord.gg/YSV7hb).