MASTERNODE SETUP GUIDE

Intro

This tutorial will assist in setting up either a local(cold) Masternode or remote(cold). A remote Masternode does NOT need a local wallet containing the Masternode collateral, this is often known as a cold setup. It does help to have some basic knowledge of the Unix shell but with this guide you should be fine.

Requirements

In order to setup a remote(cold) Masternode you will need:

- A local Credits(CRDS) Qt wallet installed on your main machine containing just over 500CRDS to cover the Masternode collateral cost and any possible fees for transactions.
- A VPS with a fixed IPv4 address <VPS IP> and the port 31000 open.

Remote Setup(cold)

Preparing your VPS

- Connect to your webserver by using ssh <youruser>&<VPS IP> or ssh <youruser>@<VPS URL>
- Once connected to your VPS, get the Duality binary archive from GitHub and extract it:

```
wget https://goo.gl/dZWgmG
tar –xzf Credits-Linux-x64-v1.0.0.0.tar.gz
```

- Navigate to the Credits binary directory to see the binaries:

```
cd credits-1.0.0/bin
ls –lisa
```

- In order to start the binaries from any directory in the system, you need to add this directory to your $PATH variable or link them to a place where the system can find it. We assume that ~/bin/ is your $PATH:

```
sudo ln –s $(pwd)/creditsd ~/bin/creditsd
sudo ln –s $(pwd)/credits-cli ~/bin/credits-cli
```

- Now you should be able to run creditsd and credits-cli from anywhere.

Configuring your Masternode

- Start the daemon:

    creditsd –daemon

- The Credits node will now start syncing the blockchain automatically, you can check its progress by typing:

    credits-cli getinfo

- Next, we need to create a private key for the Masternode. The controller wallet on your local machine will use that private key to start/communicate with your Masternode:

    credits-cli masternode genkey

- Write down the generated key as <masternodeprivkey>
- After the wallet has completed syncing, stop the daemon:

    credits-cli stop

- Now we have to edit the Credits configuration file:

    Nano ~/.credits/credits.conf

- Add the following lines (save with <CTRL>+o, close with <CTRL>+x)

    port=31000
    externalip=<VPS IP>
    masternode=1
    masternodeprivvkey=<masternodeprivkey>

- Now, starting the node you will have a Masternode ready to be controlled:

    creditsd –daemon

- You can check the status of your remote Masternode using the client:

    credits-cli masternode status

Setting up the controller wallet

The wallet on your local machine acts as the controller wallet for your Masternodes. It contains the Masternode collateral and can activate your remote Masternode on your VPS. We will use the Credits Qt Wallet as the controller in this guide.

Setting the collateral funds

- In the Qt wallet, go to the tab "Receive" and create a new addess. You may use a label like "Masternode Collateral". Copy the address just generated, which we will call <collateraladddres>.
- Go to "Send" and send EXACTLY 500CRDS to the address <collateraladdress>
- Now got to "Tools->Debug Console" and type "masternode outputs" and you should see something like "<collateralTXID>" : "<TXINDX>", the <collateralTXID> is a long alphanumerical string, whereas the <TXINDX> is a small number, usually 1 or 0, take a note of these.

Configuring the Masternode configuration file on the controller wallet

- Now got to "Tools->Edit Masternode Configuration File" and add this line:

  <alias> <VPS IP>:31000 <masternodeprivkey> <collateralTXID> <TXINDX>

  - <alias>: any name can be given
  - <VPS IP>: The external IP address of your remote VPS.
  - <masternodeprivkey>: The key you generated earlier and put in masternode.conf on the remote VPS
  - <collateralTXID>: The long alphanumerical string when typing masternode outputs in the debug console.
  - <TXINDX>: The small number when typing masternode outputs in the debug console.

- Quit the Credits Qt wallet and start it back up.
- Go to the "Masternodes" tab. Your Masternode will be listed with its alias as "MISSING".
- Wait for your 500CRDS you sent to have 16 confirmations.
- Now right-click on your Masternode listed in the "Masternodes" tab and click "Start Alias"
- The Masternode will now start and enter "PRE-ENABLED" within 10 minutes and then switch to "ENABLED" automatically after a short period of time.
- All Masternode payments will be paid to the <collateraladdress>

Setting up a Local Masternode

To setup a hot Masternode simply do the same as above but on your local machine and not remotely. To ensure that the Masternode is reachable, you need to have a fixed IP address and port 31000 open. For easily editing the Masternode configuration file you can simply use "Tools->Edit Wallet Configuration File"