



## DAPS Masternodes

[Introduction](#)

[Hot/Cold Wallet Setup](#)

[Securing Your VPS](#)

[Single PC Setup](#)

[Using Our Script](#)

[Masternode Hosts](#)

[Troubleshooting](#)

### Introduction:

DAPS Masternodes are required to have 1,000,000 DAPS collateral, a dedicated IP address, and be able to run 24 hours a day without more than a 1-hour connection loss. Masternodes get paid using See-Saw Balance Reward System (SBRS). For offering their services to the network, Masternodes are paid a portion of the block rewards to help maintain the ecosystem. This payment is in DAPS and serves as a form of passive income to the Masternode owners.

The DAPS Masternode system is modelled after the PIVX Masternode system. This has many bonuses, including preventing a 51% attack unless both Proof-Of-Stake and Masternode layers are compromised simultaneously. The SBRS has a 60/40 MN/PoS reward split balancing to a maximum of 40/60 MN/PoS reward split. This gives a fair reward to holders.

While DAPS is trustless, there still needs to be an element of trust. Masternodes on any Masternode chain are seen as a trusted node. This is due to the collateral in coins that is locked away as part of collateralization transaction for the Masternode to be considered trusted. DAPS is, by design, anonymous with hidden transaction amounts. This presents a specific problem when collateralizing a Masternode and ensuring that the collateral is correct and locked away. Therefore, all collateralization transactions for Masternodes have a visible amount that is neither Bulletproofed nor part of a Ring signature either. As soon as the Masternode is de-collateralized, the UTXO that was collateralized is sent back to the designated wallet and is treated as a normal transaction.

There are a number of ways to get started with a DAPS Masternode. Here is a brief description of the ways currently available to give you an idea of how you might want to do it:

Hot/Cold Wallet Setup – Typically requires two computers/wallets and a bit of technical knowledge. We do have scripts available for use here: <https://github.com/DAPSCoin/Scripts/tree/master/Masternodes>. More on the Scripts specifically in a section below.

Single PC Setup – Similar to the setup above, only everything is done via a single computer, using one wallet.

Masternode Hosts – Probably the easiest way as you typically only need to provide a few details and you are up and running.

Each option has its pro/cons and requires a different level of skill, with using a Masternode Host typically being the easiest. If that sounds like the way to go, jump to that section [here](#).

**Please turn Staking OFF before setting up any Masternodes!**

## Hot/Cold Wallet Setup:

One of the more common Masternode setups, a “Hot/Cold Wallet Setup” consists of:

- a “Hot wallet” which is the Masternode running on the VPS and is connected 24/7, accessible via RPC port 53573. Requires static IP address. No coins will be in this wallet.
- a “Cold wallet” which is the QT wallet that holds all your coins and Masternode collateral. Does not need to be connected 24/7 nor does it need a static IP. All rewards are received to this wallet.

### Requirements:

- 1,000,000 (1 million) DAPScoin
- Main computer with QT Wallet ("Control wallet") - This will run the control wallet, hold your collateral 1,000,000 DAPS and can be turned on/off without affecting the masternode.
- VPS from provider of your choice (Aruba, Digital Ocean, Vultr, etc.) - The computer that will be on 24/7 [Minimum specs: 1GB RAM/20GB HD – Ubuntu 18.04 recommended, Ubuntu 16.04 works with changes] OR a Masternode Host.
- Unique IP address for your VPS / Remote wallet

### Create a Virtual Private Server (VPS)

Below are instructions on how to setup a VPS with the minimum specs on [Aruba](#) and [Vultr](#). This should allow you to run at least 1 Masternode but can work with more with some effort. If you already have one setup, feel free to skip ahead to [QT Wallet Configuration](#).

### Aruba Cloud VPS Setup (Prefer Vultr? Click [Here](#))

1. Create an account at <https://www.arubacloud.com/>
2. Login to Control Panel and click **Create New Server**.



[Do you need help?](#) 

Here you can add new Cloud Servers, see the list of Cloud Servers and their details, change their name, switch them on or off, archive them or delete them.

 **CREATE NEW SERVER**

3. For **Choose Server** we will select **Smart**. This is the cheaper, more efficient option to select.

## 1 Choose Server:

**PRO** High performance and total customization.

- ✓ You only pay for the **hourly use** of your resources.
- ✓ Connect to other Cloud Servers using **Virtual Switches**.
- ✓ The hardware is redundant and can be **customized** in terms of the components you want.

[more info](#)

**HOURLY COST:** from **0.0230 Euro/hour** or monthly cost from **16.5600 Euro/month**  
At the end of each hour, you will only be charged for what you have used.

**SMART** More affordable solution for a reduced set of functionalities.

- ✓ Monthly price plans for different sizes.
- ✓ Based on **VMWare** technology with a basic set of functionalities at affordable prices.

[more info](#)

**MONTHLY COST:** from **2.7900 Euro/month** cannot be divided into hourly cost.  
Once configured, you will be charged the cost and have access to your Cloud Server for 30 days.

4. Under **Server Information** we will enter a name for the server.

## 2 Server Information

[more info](#)

Name

DAPS-Masternode

5. Once done that, click **Choose Template**.

## 3 Choose Template

[more info](#)

No operating system or template selected.

CHOOSE TEMPLATE

6. Click **Ubuntu 18.04 LTS 64-bit** on the left side and then click **Choose This Template**. You can also choose **Ubuntu 16.04 LTS 64-bit**.

## Preconfigured Templates

1 Choose Template

-  Ubuntu Server 18.04 LTS 64bit
-  Debian 9 64bit
-  FreeBSD 10.x 64bit
-  CentOS 7.x 64bit
-  CentOS 7.x 64bit - LEMP
-  CentOS 7.x 64bit - LAMP
-  CentOS 7.x 64bit - MySQL 5.5
-  CentOS 7.x 64bit - Wordpress

2 Template Details

### Ubuntu Server 18.04 LTS 64bit

64 bit IPv6 Linux Ubuntu

#### Features

Based on Debian, renowned for its strength as a server system, the Server edition of Ubuntu inherits fantastic performance and predictable evolution. The first version of Ubuntu to have a separate server .was 5.10, released in October 2005. From version 18.04 LTS (Bionic Beaver) Ubuntu introduces the use of Kernel 4.15, GNOME (for graphic environments) and the return to Xorg, as opposed to Wayland used in Ubuntu 17.10. Furthermore, in Ubuntu 18.04 the role of the Snaps is key, technology based on Linux containers.

#### Access



No cost applied	
Code: <b>LU18-001</b>	<a href="#">Complete guide</a>
	<b>IPv6 compatible</b>
No cost applied	

[Cancel](#)
CHOOSE THIS TEMPLATE

7. Under **Server account details** we will choose a strong password for the VPS. The default username is root.

**4** Server account details [more info](#)

Username \* : **root**

Password \* :

*At least 7 characters including upper case, lower case and numbers.*

Repeat Password \* :

8. Under **Choose Size** we will select **Small**.

## 5 Choose Size

[more info](#)

The CPU, RAM and Hard Disk values are linked.

Small	Medium	Large	Extra Large
2.79 Euro/ month	3.50 Euro/ month	6.50 Euro/ month	12.50 Euro/ month
<ul style="list-style-type: none"> <li>1 Virtual CPU</li> <li>1 GB of RAM</li> <li>20 GB of Hard Disk</li> <li>2 TB/month of traffic</li> </ul>	<ul style="list-style-type: none"> <li>1 Virtual CPU</li> <li>2 GB of RAM</li> <li>40 GB of Hard Disk</li> <li>5 TB/month of traffic</li> </ul>	<ul style="list-style-type: none"> <li>2 Virtual CPU</li> <li>4 GB of RAM</li> <li>80 GB of Hard Disk</li> <li>12 TB/month of traffic</li> </ul>	<ul style="list-style-type: none"> <li>4 Virtual CPU</li> <li>8 GB of RAM</li> <li>160 GB of Hard Disk</li> <li>25 TB/month of traffic</li> </ul>

9. Finally we will click **Create Smart Cloud Server** and wait for our new VPS to be deployed.

[How are the costs calculated?](#)

Cost Per Calendar Month <i>until 31/5/2019</i>	<b>0.00<sup>00</sup> Euro</b>
Cost Per 30 Days <i>until 24/6/2019</i>	<b>2.79<sup>00</sup> Euro</b>

Cost per Month  
**2.79 Euro**

**CREATE SMART CLOUD SERVER**

### Vultr VPS Setup (Prefer Aruba? Click [Here](#))

1. Create an account at <https://www.vultr.com/>
2. Login and click the **Servers** tab. Click the big blue + button on the right to “Deploy New Server”.

Servers Sort by: Location ▾

Instances Snapshots ISO Startup Scripts SSH Keys DNS Backups Block Storage Reserved IPs Firewall Networks +

3. Remain on the **Vultr Cloud Compute (VC2)** tab and choose any location you like.

Vultr Cloud Compute (VC2)
Bare Metal Instance 60% OFF PROMO
Storage Instance
Dedicated Instance

1 Server Location

[All Locations](#) America Europe Australia Asia

4. Under **Server Type** we will be selecting **Ubuntu version 18.04 x64**. (Ubuntu version 18.04 x64 also works)

2 Server Type

64 bit OS   32 bit OS   Application   Upload ISO   ISO Library   Backup   Snapshot

 <b>CentOS</b> Select Version	 <b>CoreOS</b> Stable x64	 <b>Debian</b> Select Version	 <b>Fedora</b> Select Version
 <b>FreeBSD</b> Select Version	 <b>OpenBSD</b> Select Version	 <b>Ubuntu</b> 18.04 x64	 <b>Windows</b> Select Version

5. Under **Server Size** we will be picking their 25GB SSD, 1GB RAM for \$5 USD/month.

3 Server Size

<p>IPv6 ONLY</p> <p>10 GB SSD</p> <p><b>\$2.50/mo</b> \$0.004/h</p> <p>1 CPU 512MB Memory 500GB Bandwidth</p>	<p>25 GB SSD</p> <p><b>\$5/mo</b> \$0.007/h</p> <p>1 CPU 1024MB Memory 1000GB Bandwidth</p>	<p>55 GB SSD</p> <p><b>\$10/mo</b> \$0.015/h</p> <p>1 CPU 2048MB Memory 2000GB Bandwidth</p>	<p>80 GB SSD</p> <p><b>\$20/mo</b> \$0.03/h</p> <p>2 CPU 4096MB Memory 3000GB Bandwidth</p>
---	---	--	---

6. Skip **Additional Features\***, **Startup Scripts** and **SSH Keys**, down to **Server Hostname and Label** where you will give your server a name to identify it if you decide to create more than one masternode. I would recommend the hostname and label be the same for ease.

**\*Checkmark IPv6 if you would like to run multiple nodes via IPv6 (Free)**

7 Server Hostname & Label

Enter server hostname: DAPS-Masternode	Enter server label: DAPS-Masternode
---	--

7. Finally click **Deploy Now**.

Servers Qty:  Summary: **\$5.00/mo** (\$0.007/hri) **Deploy Now**

8. Once the server is ready it will look like this:

<input type="checkbox"/>	<b>DAPS-Masternode</b> 1024 MB Server - 127.0.0.0		 New Jersey	\$5.00	<span style="color: green;">■</span> Running	...
--------------------------	--	---	--	--------	--	-----

9. Click the server name to display the information for it, including the default username and randomly set password. Save that for later.

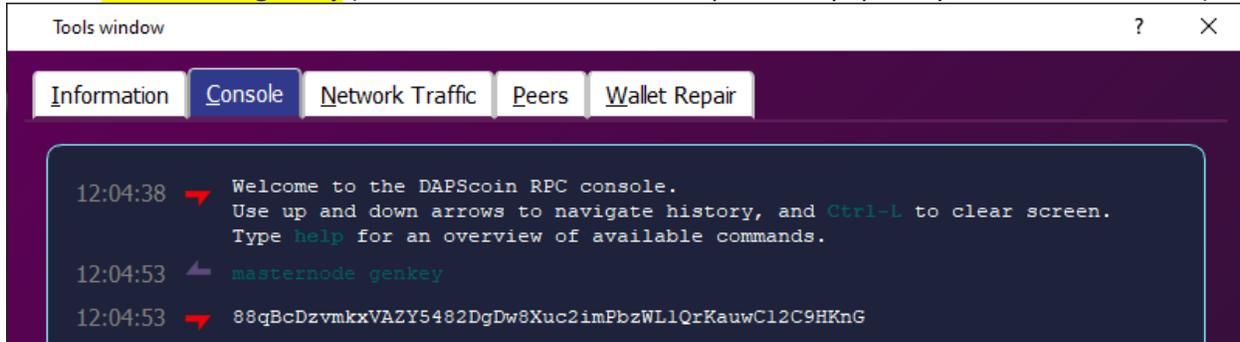
Location:  New Jersey	CPU: 1 vCore	Label: DAPS-Masternode
IP Address: 127.0.0.1 	RAM: 1024 MB	Tag: <a href="#">[Click here to set]</a>
Username: root	Storage: 25 GB SSD	OS: Ubuntu 18.04 x64
Password: .....  	Bandwidth: 70.53 GB of 1000 GB	

## QT Wallet Configuration (“Control Wallet” AKA “Cold Wallet”)

**Note: All commands in this step will be done in the QT Wallet and on the main computer.**

1. Enter the Debug Console (Tools > Debug console or press F1 button) and type the following command:

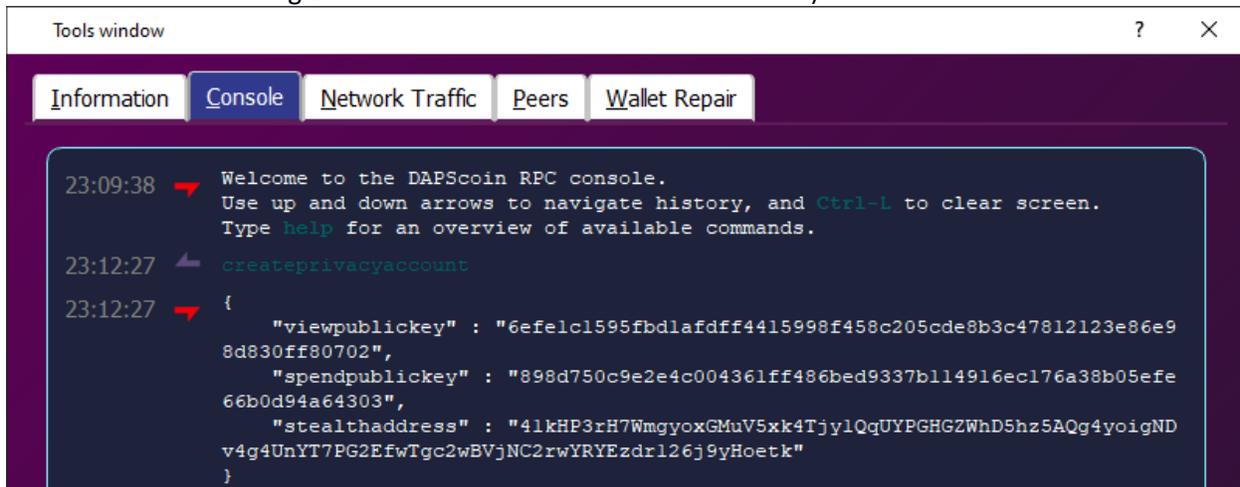
**masternode genkey** (This will be the masternode’s private key “privkey”. We’ll use this later.)



```
Tools window
Information Console Network Traffic Peers Wallet Repair
12:04:38 Welcome to the DAPScoin RPC console.
Use up and down arrows to navigate history, and Ctrl-L to clear screen.
Type help for an overview of available commands.
12:04:53 masternode genkey
12:04:53 88qBcDzvmkxVAZY5482DgDw8Xuc2imPbzWL1QrKauwCl2C9HKnG
```

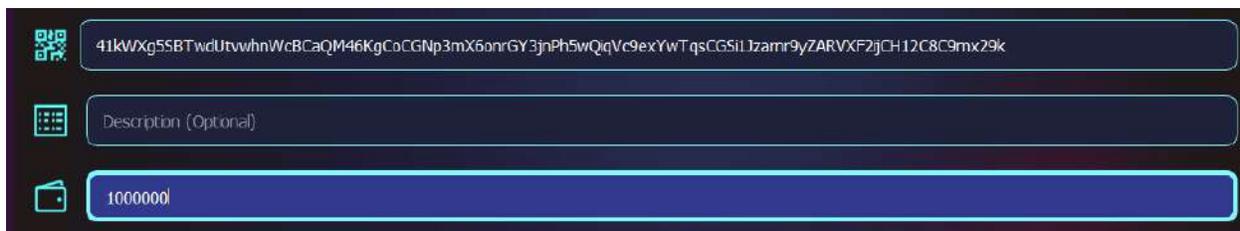
2. Still in Debug Console, enter the following command:

**createprivacyaccount** (This will print the long stealth address (99 characters) of your wallet that will be used for receiving DAPS rewards as well as DAPS from others)



```
Tools window
Information Console Network Traffic Peers Wallet Repair
23:09:38 Welcome to the DAPScoin RPC console.
Use up and down arrows to navigate history, and Ctrl-L to clear screen.
Type help for an overview of available commands.
23:12:27 createprivacyaccount
23:12:27 {
  "viewpublickey" : "6efelc1595fbdlafdf4415998f458c205cde8b3c47812123e86e9
8d830ff80702",
  "spendpublickey" : "898d750c9e2e4c004361ff486bed9337b114916ec176a38b05efe
66b0d94a64303",
  "stealthaddress" : "41kHP3rH7WmgyoxGMuV5xk4Tjy1QqUYPGHGZWhD5hz5AQg4yoigND
v4g4UnYT7PG2EfwTgc2wBVjNC2rwYRYEzdr126j9yHoetk"
}
```

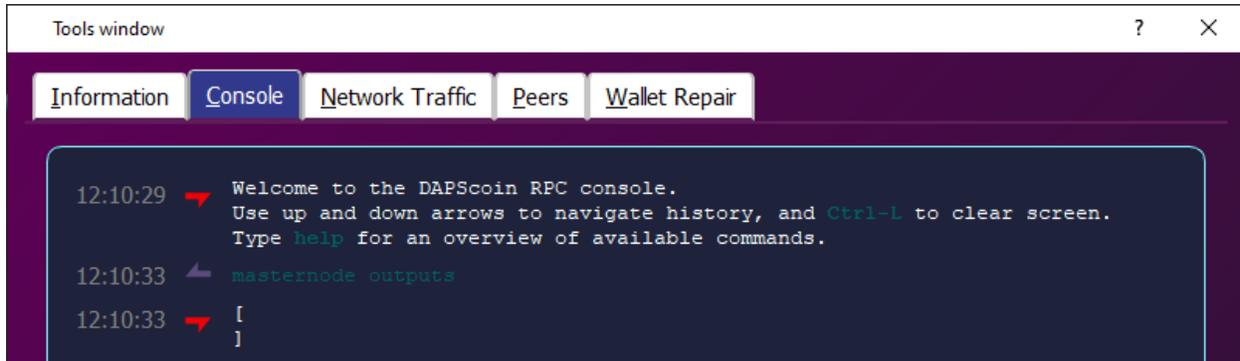
3. Go to the **Send** tab and send **1,000,000 DAPS** to the *stealth address* you generated in step 2. (Be 100% sure that you entered the address correctly. You can verify this when you paste the address into the “Pay To:” field, the label will auto-populate with the name you chose. Also make sure the amount is exactly 1,000,000 DAPS; No more, no less.)



**\*Be absolutely 100% sure that this is copied correctly. And then check it again. We cannot help you if you send 1,000,000 DAPS to an incorrect address. \***

4. Return to the Debug Console and enter this command (if you receive an empty response, wait 10 confirmations and try again.)

**masternode outputs** (This gets the proof of transaction of sending 1,000,000 DAPScoin)



The screenshot shows a 'Tools window' with a 'Console' tab selected. The console output is as follows:

```

12:10:29 → Welcome to the DAPScoin RPC console.
           Use up and down arrows to navigate history, and Ctrl-L to clear screen.
           Type help for an overview of available commands.
12:10:33 ← masternode outputs
12:10:33 → [
           ]

```

5. Still on the main computer, go into the DAPScoin data directory (default directories per OS below):

**Windows:** %APPDATA%/DAPScoin

**Linux:** ~/.dapscoin

**Mac:** ~/Library/Application Support/DAPScoin

Shortcut for this is also to right click the Taskbar icon and click "Open Masternode Configuration File". This should open it directly in your default text editor. If not, select a text editor when prompted.

6. Open masternode.conf in a text editor and add the following line:

<Name of Masternode(Use the name you entered earlier for simplicity)> <Unique IP address>:53572  
<The result of Step 1> <Result of Step 4> <The number after the long line in Step 4>

Example: MN1 127.0.0.1:53572 892WPpkqbr7sr6Si4fdfsfssjjapuFzAXwETCrpPJubnrnU6aKzh  
c8f4965ea57a68d0e6dd384324dfd28cfbe0c801015b973e7331db8ce018716999 1

Substitute it with your own values and without the "<>"s and save.

We are done with the Control Wallet for now but will come back to it once the VPS side is set up.

### **DAPScoin Daemon Installation and Configuration on VPS ("Hot Wallet")**

**Note: All commands in this step will be performed on the VPS using putty or an SSH application of your choice. All commands are case sensitive. You can right click to paste commands from clipboard.**

1. Download or compile the latest version of the DAPScoin daemon onto your VPS. It's recommended to put the files in /usr/local/bin folder to make it easier to execute the commands. To download and extract to this folder you can use: dapscoin-v1.0.7.1-linux.zip

```

wget https://github.com/DAPSCoin/DAPSCoin/releases/download/1.0.7.1/dapscoin-v1.0.7.1-linux.zip
sudo unzip -jo dapscoin-v1.0.7.1 -d /usr/local/bin
sudo chmod +x /usr/local/bin/dapscoin*

```

2. Log on to the the VPS console and change to the DAPS data directory (~/.dapscoin) by typing the command below:

```
cd ~/.dapscoin
```

3. Open the dapscoin.conf in your favorite text editor (vi used for example):

```
vi dapscoin.conf
```

then press **i** to go into insert mode and make the configuration file look like this:

```
rpcuser=long random username
rpcpassword=longer random password
rpcallowip=127.0.0.1
server=1
daemon=1
logtimestamps=1
maxconnections=256
masternode=1
externalip=your unique public ip address
masternodeprivkey=Result of Step 1
```

Make sure to replace **rpcuser** and **rpcpassword** with your own, as well as the **externalip** and **masternodeprivkey**.

To save and exit the editor press Esc then :wq! then press Enter.

4. Now change to the directory you have dapscoind and run the command:

```
./dapscoind -daemon
```

5. Allow it to sync. To check the progress use the command:

```
./dapscoin-cli getblockchaininfo
```

### Final Steps (performed in the “Cold Wallet”)

**Note: Make sure the Control Wallet and DAPSCOIN Daemon are both fully synced before proceeding.**

1. Restart the Control Wallet and go to the Masternodes tab.

2. Right click the line of the Masternode you would like to start and click **Start alias**.

Address	Status	Alias	Active	Last Seen (UTC)	Pubkey
MNI	127.0.0.1:53572	MISSING	00m:00s	1970-01-01 00:00	

If you have more than one to start, you can click **Start all** or **Start MISSING** instead.



If you run into any issues, head to the [Troubleshooting](#) section below.

## Securing Your VPS

1. Login to the VPS and make sure your system is up to date with this command:  
**sudo apt-get update && sudo apt-get upgrade -y**
2. Install [Fail2ban](#) by entering this command:  
**sudo apt-get install fail2ban -y**
3. Allow SSH and DAPScoin ports in [Uncomplicated Firewall \(UFW\)](#):  
**sudo ufw allow ssh**  
**sudo ufw allow 53572**  
**sudo ufw allow 53573**
4. Enable UFW with this command and you are all set:  
**sudo ufw enable**

## Single PC Setup

### QT Wallet Configuration

**Note: All commands in this step will be done in the QT Wallet.**

1. Enter the Debug Console (Tools > Debug console or press F1 button) and type the following command:

**masternode genkey** (This will be the masternode's private key "privkey". We'll use this later.)

The screenshot shows the 'Tools window' with the 'Console' tab selected. The output of the 'masternode genkey' command is displayed as follows:

```

12:04:38 → Welcome to the DAPScoin RPC console.
           Use up and down arrows to navigate history, and Ctrl-L to clear screen.
           Type help for an overview of available commands.
12:04:53 ← masternode genkey
12:04:53 → 88qBcDzvmkxVAZY5482DgDw8Xuc2imPbzWL1QrKauwC12C9HKnG

```

2. Still in Debug Console, enter the following command:

**createprivacyaccount** (This will print the long stealth address (99 characters) of your wallet that will be used for receiving DAPS rewards as well as DAPS from others)

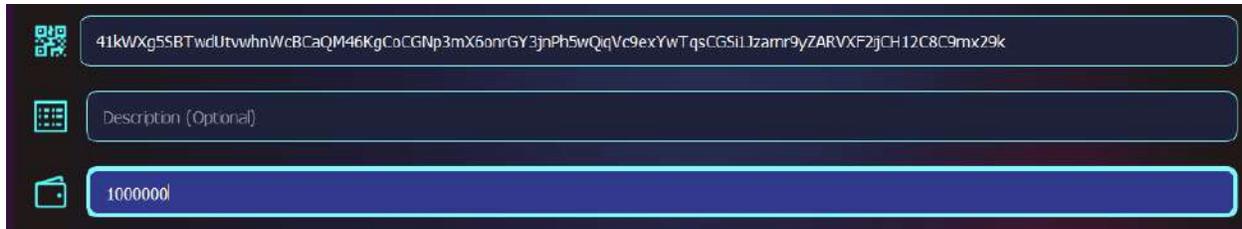
The screenshot shows the 'Tools window' with the 'Console' tab selected. The output of the 'createprivacyaccount' command is displayed as follows:

```

23:09:38 → Welcome to the DAPScoin RPC console.
           Use up and down arrows to navigate history, and Ctrl-L to clear screen.
           Type help for an overview of available commands.
23:12:27 ← createprivacyaccount
23:12:27 → {
           "viewpublickey" : "6efelc1595fbdlafdf4415998f458c205cde8b3c47812123e86e9
           8d830ff80702",
           "spendpublickey" : "898d750c9e2e4c004361ff486bed9337b114916ec176a38b05efe
           66b0d94a64303",
           "stealthaddress" : "41kHP3rH7WmgYoxGMuV5xk4Tjy1QqUYPGHGZWhD5hz5AQg4yoigND
           v4g4UnYT7PG2EFwTgc2wBVjNC2rwYRYEzdr126j9yHoetk"
           }

```

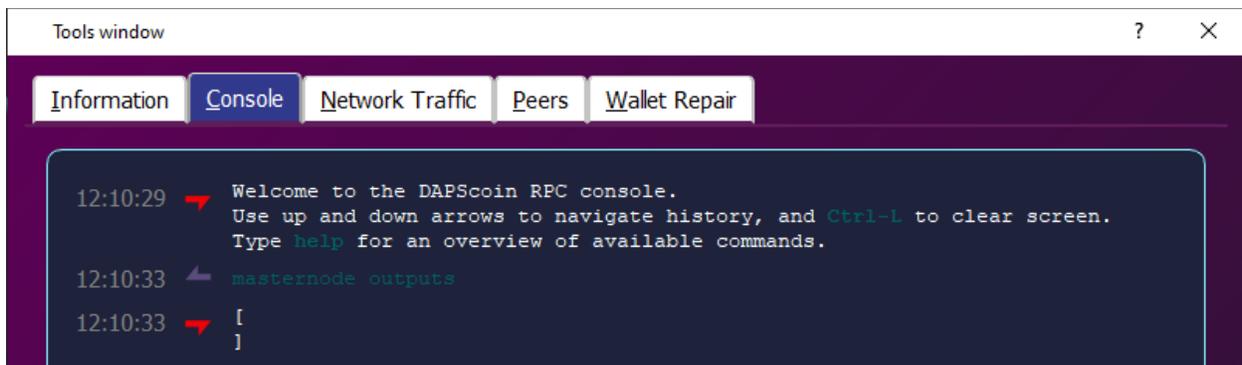
3. Go to the **Send** tab and send **1,000,000 DAPS** to the *stealth address* you generated in step 2. (Be 100% sure that you entered the address correctly. You can verify this when you paste the address into the “Pay To:” field, the label will auto-populate with the name you chose. Also make sure the amount is exactly 1,000,000 DAPS; No more, no less.)



**\*Be absolutely 100% sure that this is copied correctly. And then check it again. We cannot help you if you send 1,000,000 DAPS to an incorrect address. \***

4. Return to the Debug Console and enter this command (if you receive an empty response, wait 10 confirmations and try again.)

**masternode outputs** (This gets the proof of transaction of sending 1,000,000 DAPScoin)



5. On your PC, go into the DAPScoin data directory (default directories per OS below):

**Windows:** **%APPDATA%/DAPScoin**

**Linux:** **~/dapscoin**

**Mac:** **~/Library/Application Support/DAPScoin**

Shortcut for this is also to right click the Taskbar icon and click "Open Masternode Configuration File". This should open it directly in your default text editor. If not, select a text editor when prompted.

6. Open masternode.conf in a text editor and add the following line:

**<Name of Masternode(Use the name you entered earlier for simplicity)> <Unique IP address>:53572  
<The result of Step 1> <Result of Step 4> <The number after the long line in Step 4>**

Example: **MN1 127.0.0.1:53572 892WPpkqbr7sr6Si4fdfsfssjjapuFzAXwETCrpPJubnrmU6aKzh  
c8f4965ea57a68d0e6dd384324dfd28cfbe0c801015b973e7331db8ce018716999 1**

Substitute it with your own values and without the "<>"s and save.

7. Open the dapscoin.conf in your favorite text editor:

```
rpcuser=long random username
rpcpassword=longer random password
rpcallowip=127.0.0.1
server=1
daemon=1
logtimestamps=1
maxconnections=256
masternode=1
externalip=your unique public ip address
masternodeprivkey=Result of Step 1
```

Make sure to replace **rpcuser** and **rpcpassword** with your own, as well as the **externalip** and **masternodeprivkey**.

Save and exit.

8. Now restart the QT wallet.

9. Allow it to sync.

### Final Steps (performed in the QT Wallet)

**Note: Make sure your QT wallet has been restarted and is fully synced before proceeding.**

1. Go to the Masternodes tab.

2. Right click the line of the Masternode you would like to start and click **Start alias**.

Address	Status	Alias	Active	Last Seen (UTC)	Pubkey
MNI	127.0.0.1:53572	MISSING	00m:00s	1970-01-01 00:00	

Start alias

If you have more than one to start, you can click **Start all** or **Start MISSING** instead.



**If you run into any issues, head to the [Troubleshooting](#) section below.**

### Using Our Script

All of our scripts are available from <https://github.com/DAPSCoin/Scripts> – in this section we will discuss specifically how to use the Install.sh script for Masternodes. Similar to a Hot/Cold setup, we will require two computers. Essentially what the script does it automate the setup on the VPS side.

1. Login to your VPS

2. Download and run the script

```
wget https://github.com/DAPSCoin/Scripts/blob/master/Masternodes/Install.sh
chmod +x /Install.sh
./Install.sh
```

3. The script will walk you through the following steps:

- Downloading latest build
- Creating your dapscoin directory and editing your dapscoin.conf
- Securing your VPS
- Editing your dapscoin.conf - making sure to replace **rpcuser** and **rpcpassword** with your own, as well as the **externalip** and **masternodeprivkey**
- BootStrapping (optional)
- Launching dapscoind

### **Final Steps (performed in the “Control Wallet”)**

**Note: Make sure the Control Wallet and DAPScoin Daemon are both fully synced before proceeding.**

1. Restart the Control Wallet and go to the Masternodes tab.
2. Right click the line of the Masternode you would like to start and click **Start alias**.

Address	Status	Alias	Active	Last Seen (UTC)	Pubkey
MNI	127.0.0.1:53572	MISSING	00m:00s	1970-01-01 00:00	

Start alias

If you have more than one to start, you can click **Start all** or **Start MISSING** instead.

**If you run into any issues, head to the [Troubleshooting](#) section below.**

### **Masternode Hosts**

Third party Masternode hosts can also be a great, cost efficient way to host a Masternode and contribute to the network while still earning DAPS. Prices vary by provider, but we have quite a few options available. Ones that we currently are aware of are:





A current list can always be viewed on our Website at <https://officialdapscoin.com/masternode-hosts/>

### Troubleshooting

Permission denied when executing dapscoind, dapscoin-cli or others, enter the command:

**chmod +x dapscoind and/or chmod +x dapscoin-cli**

“error while loading shared libraries: libboost\_program\_options.so.1.65.1: cannot open shared object file: No such file or directory” or other shared libraries issues, enter the following commands on the VPS, each being it’s own line:

**sudo add-apt-repository ppa:bitcoin/bitcoin -y**

**sudo apt update**

**sudo apt install libdb4.8-dev libdb4.8++-dev libevent-dev libminiupnpc-dev libqrencode-dev -y**

**sudo apt install libboost-all-dev libzmq3-dev -y**

If your masternode keeps going to EXPIRED or REMOVE, there are a few things that need to be checked.

1. Check and make sure that the **dapscoind** process is running on the server using the **top** command. This command pulls up the Linux equivalent of the Task Manager. Once you enter **top**, the **dapscoind** process should be near the top of the list if it is actually running, though it may take about 30 seconds to appear on the list. Press CTRL + C to close.
  - a. If **dapscoind** isn't running, start it.
    - i. If it won't start, look in your **dapscoin.conf** for any sort of spelling errors or any extra spaces on the end of a line. If it still won't start, delete your **dapscoin.conf** with the command **rm ~/.dapscoin/dapscoin.conf** and remake it.
    - ii. If it does start, restart your masternode in the QT wallet.
  - b. If **dapscoind** is running, check and make sure that the *masternode genkey* and server *externalip* in **dapscoin.conf** are correct.
2. Check and make sure that the **masternode.conf** on your local PC is correct. Each masternode should be on its own line, with a **different** genkey and transaction ID.
3. While **dapscoind** is running, enter the command **dapscoin-cli getinfo** and check the version number. Ensure it is correct.

If your masternode still isn't working, reach out to us on [Discord](#) or [Telegram](#) for more assistance.

**If you have any suggestions or fixes, please let us know.**