# Masternode Setup Guide

# Christmas Coin

## Part 1: Installation Script

## Part 2: Manual Installation

# Automatic Installation

## 1 - Download and sync the Windows wallet

Download here:

https://github.com/Christmas-Coin/ChristmasCoin-Core/releases/download/1.0/christmascoin-1.0.0-windows.zip

WAIT THE FULL SYNC

## 2 - Setting up the collateral transaction

In the QT wallet, choose:

- File -> Receiving addresses
- and give it a label, like MN01
- Click „Request Payment“ to create the address.
- Choose „Address Copy“ to store that address in the clipboard
- Click close to exit the receiving address dialog.
- Under the Send tab, paste the address that you copied into the „Pay To“ field.
  The Label field should pre-populate with the label you gave it earlier, in this case, MN01
- In the Amount field, enter 1500
- Click „Send“ and your transaction will be broadcast to the network
- You'll need to wait for 6 confirmations
- We can start working through the rest of the setup in the meantime

## 3 - Masternode private key and txid

Next, we need to access the **debug console** to output what's known as the **collateral txid** and the **masternode private key**. Like any private key, you want to keep this secret...**there's no reason to share this number with anyone or post it publically.**

Go to: **Tools->Debug console**
In the debug console, type in: **masternode genkey**
Next, we'll generate a tx id for you masternode. Type in: **masternode outputs**

This will list all transactions that meet the parameters for starting a masternode. Since we sent a transaction to a new local wallet address, we should see the transaction id listed here (if you're not seeing any output, verify that you have in fact sent a transaction to a local wallet address for exactly the collateral).

Copy that output and paste it somewhere convenient (empty Notepad).

## 4 - Creating masternode entry in your local wallet

On your local wallet, we need to give it the configuration information for your masternode. This is done by editing your masternode.conf file.

**Tools->Open Masternode Configuration file**

This should open up your masternode.conf file in Notepad.

This file has an example line in that can be used as a guide. The # in front of the line indicates that it's "commented out", which means it's effectively ignored.
Following this example, we see that the structure is:

alias - name for your masternode

ip address - the IP address for your VPS that is hosting the node

masternode private key - the key that we generated previously using 'masternode genkey'

txid - the transaction id for your collateral transaction

index - the block position of the transaction...this is the number that appears at the end of of the txid listed by 'masternode outputs'

Following this structure, for our example we're going to add a line that looks like this:
**MN01 207.148.28.6:23798 4KKd3zArAHeKn2eoM8NcXeBK78SoALfz3c 20ab6c9920191bf1ef278safsad8e674a5ece7e5b903d9fbf698arqwq 1**

NOTE: Between the alias name, IP address, masternode key and tx id is only one blank!

Beware that after the last number is no blank!

Double check your entries to make sure they all match up, and then save and close the notepad. Every time you edit or make changes to the masternode.conf file (or any conf file), you need to close and re-open the wallet to initialize the changes. So close your local wallet, and then re-open.
Once you've re-opened, on the Masternodes tab you should see your node listed.

Note: For multiple nodes, just add second line after that with the new values.

## 5 - Linux VPS

You will choose a VPS provider which you like. You not need "special" security extras, like DDOS protection. Use fail2ban and the UFW firewall for security hardening. Be patient with other different masternodes on one server.

This hardware specs are enough for a stable masternode: 1024 MB (1GB RAM), 20 GB disc, 1 CPU

Log in via putty (or other SSH console tool) to your server.

Check the usage of your hard disk: *df –h*
When you are running more than 80% on some volumes you must do something.

Update your package repos and update the server with:

*apt-get update* && *apt-get upgrade –y*

When it's done, reboot the machine.

## 6 - Install the Masternode

Start the installation:

*wget https://github.com/Christmas-Coin/Masternode-Setup/raw/master/chmc-setup.sh && bash chmc-setup.sh*

When the script you asked about the masternode key, copy the key which you are created in step 3 (masternode genkey) and paste it with a right mouse click in the putty windows and press return (enter).

NOTE: The coin daemon is starting automatically (service). When you are rebooting the server, the masternode is starting automatically.

Now we must wait for the full synchronization. We will control this with the following command:

watch ./christmascoin-cli mnsync status

When in the first line „IsBlockchainSynced": true,
Then exit with: Ctrl+C

```
root@:~# ./christmascoin-cli mnsync status
{
    "IsBlockchainSynced" : true,
    "lastMasternodeList" : 1542207373,
    "lastMasternodeWinner" : 1542207393,
    "lastBudgetItem" : 0,
    "lastFailure" : 0,
    "nCountFailures" : 0,
    "sumMasternodeList" : 4,
    "sumMasternodeWinner" : 6,
    "sumBudgetItemProp" : 0,
    "sumBudgetItemFin" : 0,
    "countMasternodeList" : 4,
    "countMasternodeWinner" : 3,
    "countBudgetItemProp" : 4,
    "countBudgetItemFin" : 4,
    "RequestedMasternodeAssets" : 4,
    "RequestedMasternodeAttempt" : 4
}
```

## 7 - Activate the Masternode

Return to your local wallet.

NOTE, before clicking start, make sure your transaction has AT LEAST 6 confirmations, you can check the number of confirmations by hovering the mouse cursor over the transaction in the Transactions tab.

Click the Start button.

„Masternode succesfully started“

## 8 - Check the Masternode status on the server

./chmc-control.sh -f

```
root@MN29:~# ./christmascoin-cli masternodedebug
Masternode successfully started
root@M  :~#
```

We can see: „Status: 4“ - “Masternode successfully started”

All is fine and you are finished.

## 9 - Masternode Control Program

With this small program, or better to say control script, you can easy manage and check all important functions of the masternode. The location is: /root

The start is pretty easy: ./chmc-control.sh -OPTION - Sample: ./chmc-control.sh -f

| | |
|---|---|
| -a | start CHMC service |
| -b | stop CHMC service |
| -c | status CHMC service |
| -d | checks the autostart of the CHMC service |
| -e | masternode sync status |
| -f | masternode status |
| -h | help - usage for this script |
| -i | connection count |
| -j | wallet info |
| -k | firewall status |
| -l | show christmascoin.conf |
| -m | show firewall log |

# Masternode manual Setup Guide

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Log in via putty (or other SSH console tool) to your server.

Check the usage of your hard disk: *df –h*
When you are running more than 80% on some volume you must do something.

Update your package repos and update the server with:

*apt-get update* && *apt-get upgrade –y*

Install zip: *apt-get install unzip*

When it's done, reboot the machine.

## 6 - Install the Masternode

Download the files:

*wget https://github.com/Christmas-Coin/ChristmasCoin-Core/releases/download/1.0/christmascoin-1.0.0-i686-pc-linux.zip*

- Unzip the wallet: unzip christmascoin-1.0.0-i686-pc-linux.zip
- Remove the not needed zip file: rm christmascoin.zip
- Make the files executable: chmod +x christmascoin-cli && christmascoind
- Start the daemon to create the needed directories: ./christmascoind
- Count till 5
- Stop the daemon: ./christmascoin-cli stop

Edit your config file with the editor of your choice: nano .christmascoin/christmascoin.conf

Paste the following parameters in this file and change red entries to yours:

rpcuser=myrpcuser
rpcpassword=mylongrandompassword
port=23798
rpcport=23799
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logintimestamps=1
maxconnections=256
masternode=1
externalip=YOUR-IP
masternodeprivkey=this is the key which you generated in step 3 under (masternode genkey)

Note: Please Press Ctrl+X then Y and enter to save the above information.

Start your masternode: ./christmascoind

## 7 - Activate the Masternode

Return to your local wallet.

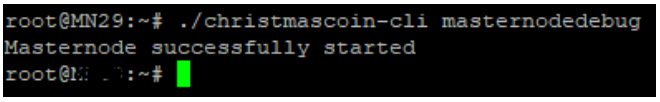
NOTE, before clicking start, make sure your transaction has AT LEAST 6 confirmations, you can check the number of confirmations by hovering the mouse cursor over the transaction in the Transactions tab.

Click the Start button.

„Masternode succesfully started“

## 8 - Check the Masternode status on the server

./christmascoin-cli masternodedebug




We can see: “Masternode successfully started”

All is fine and you are finished.

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# ipv6 conf example

rpcuser=username
rpcpassword=password
bind=[2001:19f0:4400:6139:5400:01ff:fe94:31ed]
port=23798
rpcport=23799
rpcallowip=127.0.0.1
listen=1
server=1
daemon=1
logintimestamps=1
maxconnections=256
masternode=1
masternodeaddr=[2001:19f0:4400:6139:5400:01ff:fe94:31ed]:23798
masternodeprivkey=your_private_key

---