

Mining Bitcoin on FreeBSD

04/12/2017 06:31 PM - Daniel Curtis

Status:	Closed	Start date:	04/12/2017
Priority:	Normal	Due date:	
Assignee:	Daniel Curtis	% Done:	100%
Category:	Cryptocurrency	Estimated time:	1.50 hour
Target version:	FreeBSD 10	Spent time:	1.50 hour

Description

This is a guide for setting up and mining bitcoin on FreeBSD 10. This is not a comprehensive guide and is meant for educational purposes. YMMV

Prepare the Environment

- Make sure the system is up to date:

```
pkg update && pkg upgrade
```

- Install sudo:

```
pkg install sudo
```

- Create a bitcoin user and group:

```
pw add group bitcoin
pw add user -n bitcoin -g bitcoin -s /sbin/nologin -c "Bitcoin"
```

Install Bitcoin Daemon

- Install bitcoin-daemon:

```
pkg install bitcoin-daemon bitcoin-utils
```

- Create a basic bitcoin config file:

```
vi /usr/local/etc/bitcoin.conf
```

- And set the following parameters:

```
rpcuser=bitcoinrpc
rpcpassword=SuperSecretPassword
rpcallowip=127.0.0.1
rpcport=2300
daemon=1
server=1
gen=0
```

- Create the bitcoin data directory:

```
mkdir /var/db/bitcoind
chown bitcoin:bitcoin /var/db/bitcoind
```

- Start and enable the server at boot:

```
echo 'bitcoind_user="bitcoin"' >> /etc/rc.conf
echo 'bitcoind_group="bitcoin"' >> /etc/rc.conf
echo 'bitcoind_data="/var/db/bitcoind"' >> /etc/rc.conf
echo 'bitcoind_enable="YES"' >> /etc/rc.conf
service bitcoind start
```

Useful Commands

- Get blockchain and network stats

```
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getblockchaininfo
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getnetworkinfo
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getnettotals
```

- Create a new bitcoin address and retrieve the address:

```
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getnewaddress "MyBitcoin"
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getaccountaddress "MyBitcoin"
```

- Get wallet info:

```
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf getwalletinfo
```

- Get help:

```
sudo -u bitcoin bitcoin-cli -conf=/usr/local/etc/bitcoin.conf help
```

NOTE: To ensure you **DO NOT** lose your wallet, make sure to keep a backup of **/var/db/bitcoind/wallet.dat** in a safe and secure location.

- Get the blockchain size used on disk:

```
du -ch /var/db/bitcoind/blocks/
```

- Check the blockchain download progress:

```
tail -f /var/db/bitcoind/debug.log
```

Install Bitcoin GUI Client

- **NOTE:** This is an optional step used in a graphical environment.
- Install bitcoin:

```
pkg install bitcoin
```

Resources

- https://en.bitcoin.it/wiki/Running_Bitcoin
- <https://github.com/bitcoin/bitcoin/blob/master/contrib/debian/examples/bitcoin.conf>
- <https://bitcoin.org/en/full-node#other-linux-distributions>
- <https://bitcoin.org/en/full-node#network-configuration>
- https://www.reddit.com/r/Bitcoin/comments/34amqa/freenas_full_node/

History

#1 - 04/26/2017 11:18 PM - Daniel Curtis

- *Description updated*
- *Status changed from New to In Progress*
- *% Done changed from 0 to 70*

#2 - 04/27/2017 09:15 PM - Daniel Curtis

- *Description updated*
- *Status changed from In Progress to Resolved*
- *% Done changed from 70 to 100*

#3 - 06/04/2017 08:57 PM - Daniel Curtis

- *Status changed from Resolved to Closed*