

QITCOIN DPOS 教程

部署 qitcoind

系统需求

- 4核8GiB的Linux或者Windows系统;
- Ubuntu 18.04或者Windows 7 及其以上的版本;
- 100GiB以上的HDD或者SSD存储空间;
- 打开防火墙的3333端口,有公网IP更好。
- 推荐AWS或者AliCloud,云服务器可以提供更稳定的运行环境。

部署

1. 从

<https://github.com/qitcoin2021/qitcoin/releases> 下载最新的版本;

2. 解压到 /opt/qitcoin 目录下;

3. 编写 /etc/systemd/system/qitcoind.service :

```
[Unit]
Description=Qitcoin

[Service]
ExecStart=/opt/qitcoin/bin/qitcoind -datadir=/opt/qitcoin/data/
Restart=always
RestartSec=10
Nice=-20
LimitNICE=-20
LimitNOFILE=1048576:1048576
LimitCORE=infinity
LimitNPROC=819200:1048576
IOWeight=9999
CPUWeight=1000
#CPUAffinity=1,2
LimitCORE=1024
Delegate=yes
User=root

[Install]
WantedBy=multi-user.target
```

4. 编写 /opt/qitcoin/data/qitcoin.conf :

```
server=1
maxconnections=512
```

```
执行 systemctl daemon-reload ;
执行 systemctl enable qitcoind ;
执行 systemctl start qitcoind ;
```

5. 到此, qitcoind已经在运行。

创建Staking池

1. 确定已经同步完成:

```
/opt/qitcoin/qitcoin-cli.sh getchaintips
```

2. 确认自己的地址

```
/opt/qitcoin/qitcoin-cli.sh getprimaryaddress
```

3. 创建池需要销毁 10000 QTC, 还需要加上创建的交易费, 请确保钱包中有足够的余额:

```
/opt/qitcoin/qitcoin-cli.sh createinitialstakingpooltx<PoolAddress> true 。 PoolAddress 为Staking Pool的地址, 请确保你有这个地址的私钥;
```

4. 池将会在下一个Epoch生效, 最长100个区块(大约5小时), 使用

```
/opt/qitcoin/qitcoin-cli.sh getstakingpools 命令可以查询到是否已经生效。
```

请确保钱包的运行, 离线将不会得到收益。

向Staking池做抵押

1. 查询池地址:

`/opt/qitcoin/qitcoin-cli.sh getstakingpools`, 返回的 `address` 字段即为池的地址;

2. 向池中操作抵押:

`/opt/qitcoin/qitcoin-cli.sh sendstakingtoaddress <PoolAddress> <OwnerAddress> <Amount>`。PoolAddress 为Staking Pool 的地址, OwnerAddress 为获得收益的地址, Amount 为抵押金额, 最少为100QTC;

3. 查询抵押

`:/opt/qitcoin/qitcoin-cli.sh getstakingpooluser <PoolAddress> <OwnerAddress>`

查询Staking信息

1. T以下输出的例子是在regtest网络上。

查询池地址: `/opt/qitcoin/qitcoin-cli.sh getstakingpools` :

```
{
  "pools": [
    {
      "address": "2MvmJvwiGhZu57BVStxUpUH9cpkj7AWWPah",
      "position": {
        "hash": "ac16915e42be54b3b41de8c5ac7a7b9df4f0cf3db775870b6ebb56ccd743d6e4",
        "n": 0
      },
      "stake_amount": 11300.00000000
    },
    {
      "address": "2NCpT8DWv8KbaozXsse2KHFVYvKtkMycUpS",
      "position": {
        "hash": "a21f0fac4dc5bd0bb998dee485f53744deb137ce27e235adbf9b33517d127123",
        "n": 0
      },
      "stake_amount": 500.00000000
    }
  ]
}
```

2. 查询池详细信息:

`:/opt/qitcoin/qitcoin-cli.sh getstakingpool "" 2MvmJvwiGhZu57BVStxUpUH9cpkj7AWWPah` :

```
{
  "address": "2MvmJvwiGhZu57BVStxUpUH9cpkj7AWWPah",
  "users": [
    {
      "address": "2MxurWv9kEHLUYZoTiXbnyHDTy8uF1kihPF",
      "stake_amount": 11000.00000000,
      "withdrawable_amount": 75257.04052542,
      "withdrawable_utxo": {
        "hash": "7d96c20b48955ac034784778597a3fcc0e4b86b7daa16d08e50436b7b29fb638",
        "n": 4294967294
      }
    },
    {
      "address": "2N4xRBksyX4YBQ8CTvEv6bRxGiogJXKR71j",
      "stake_amount": 300.00000000,
      "withdrawable_amount": 779.49176811,
      "withdrawable_utxo": {
        "hash": "c8b553bb54e8adde6e10b92f0cff79fe15eed2fe7af3a108859a3665077c15ec",
        "n": 4294967294
      }
    }
  ],
  "stake_amount": 11300.00000000
}
```

`withdrawable_amount` : 用户可以赎回的收益总额; `withdrawable_utxo` : 表示尚未输出, 可以操作赎回;

3. 查询用户在池中的信息：

```
/opt/qitcoin/qitcoin-cli.sh getstakingpooluser 2MvmJvwiGhZu57BVStxUpUH9cpcj7AWWPah2MxurWv9kEHLUYZoTiXbnyHDTy8uF1kihPF ☒
```

```
{
  "epoch_hash": "7b543120e6c427057c05448042447aff00bbf26db1da4a01e333f84f0175d267",
  "pool_address": "2MvmJvwiGhZu57BVStxUpUH9cpcj7AWWPah",
  "user_address": "2MxurWv9kEHLUYZoTiXbnyHDTy8uF1kihPF",
  "stake_amount": 11000.00000000,
  "withdrawable_amount": 75257.04052542,
  "withdrawable_utxo": {
    "hash": "7d96c20b48955ac034784778597a3fcc0e4b86b7daa16d08e50436b7b29fb638",
    "n": 4294967294
  }
}
```

4. 赎回的收益：

```
/opt/qitcoin/qitcoin-cli.sh withdrawpending 2MvmJvwiGhZu57BVStxUpUH9cpcj7AWWPah 2MxurWv9kEHLUYZoTiXbnyHD  
Ty8uF1kihPF :
```

```
736388cf9f980529af12398d275a1a94f71c2c0eda444acf867f2798063147e
```

这完成了 *Qitcoin* 部署指南。