

A Guide to Ropsten Testnet Setup

The public testnet **Ropsten** with networkid 3 is useful during later stage of contract development. **Geth** is one of the Ethereum client useful for connecting to testnets. This document deals with the tips how to sync your client with Testnet more quickly.

I am talking about the setup on the basis of Geth version **1.6.5**.

Step 1:

Download the genesis file for ROPSTEN-Revival. Then initialises a new genesis block and definition for the ROPSTEN network.

```
geth --datadir /path/to/testnet/data init genesis.json
```

Step 2:

The next step is blocks downloading. We can sync to Blockchain in two sync modes.

1) Normal syncing

2) Fast Syncing using `--fast` flag

`--fast` flag is associated with a fast sync.

From the Homestead Guide:

`--fast`

This flag enables fast syncing through state downloads rather than downloading the full block data. This will also reduce the size of your blockchain dramatically. NOTE: `--fast` can only be run if you are syncing your blockchain from scratch and only the first time you download the blockchain for security reasons.

Another flag that can be used along with `--fast` to sync your client more quickly is `--cache`.

From the Homestead Guide:

`--cache=1024`

Megabytes of memory allocated to internal caching (min 16MB / database forced). Default is 16MB, so increasing this to 256, 512, 1024 (1GB), or 2048 (2GB) depending on how much RAM

your computer has should make a difference.

Let the command be like this:-

```
geth --datadir /path/to/testnet/data --networkid=3 --  
syncmode=fast --cache=1024 console
```

Points to be noted(Problems you will face during setup):-

1) If you verify your console during syncing process,you can note the Loaded most recent local full block as '0'.

```
INFO [06-15|15:54:56] Loaded most recent local header      number=1121759  
hash=bdf4d6...ebcdec td=747686182747507  
  
INFO [06-15|15:54:56] Loaded most recent local full block   number=0  
hash=419410...ca4a2d td=1048576  
  
INFO [06-15|15:54:56] Loaded most recent local fast block   number=1121676  
hash=80f4d5...3ed841 td=747645006524095
```

If you try to check the blocknumber using the command `eth.blockNumber` it will return 0.

After the completion of block synchronisation you can find the difference.

```
INFO [06-16|11:00:58] Loaded most recent local header      number=1126948  
hash=4ae28e...360ad2 td=750432339366550  
  
INFO [06-16|11:00:58] Loaded most recent local full block   number=1126948  
hash=4ae28e...360ad2 td=750432339366550  
  
INFO [06-16|11:00:58] Loaded most recent local fast block   number=1126948  
hash=4ae28e...360ad2 td=750432339366550  
  
WARN [06-16|11:00:58] Blockchain not empty, fast sync disabled
```

Here, you can note the Loaded most recent local full block as latest block number.And also we get one more message regarding fast sync disabled.

Try the command `eth.blockNumber` it will return with latest block number.

Written by: <https://github.com/mariam-crissi>

