Running a Starknet RPC Node

Requirements

Minimum Requirements

CPU: 2+ cores RAM: 4 GB Disk: 600 GB Connection Speed: 8 mbps/sec

Recommended Specifications

CPU: 4+ cores RAM: 16 GB+ Disk 2 TB Connection Speed: 25+ mbps/sec

Install the Starknet L1 Package

Docker abstracts the ETH L1 Node needs, but behind the scenes Starknet requires Lighthouse and Besu. Lighthouse handles consensus and Besu handles execution. Both of them can be installed with the following command:

git clone git@github.com:starknet-edu/starknet-stack.git cd starknet-stack docker compose -f dc-l1.yaml up -d To verify success, check to see the ports in the following command outputs:

sudo

netstat -lpnut |

grep -E '30303|8551|854 sudo netstat -lpnut | grep -E ' 5054 | 9000 ' After you've seen success, your L1 client will take a moment to sync. You can check its status like so:

check goerli etherscan to make sure you have the latest block

curl --location --request POST 'http://localhost:8545'

\ --header 'Content-Type: application/json'

\ --data-raw '{ "jsonrpc":"2.0", "method":"eth_blockNumber", "params":[], "id":83 }' Compare your numbers with Starknet's Testnet_1 before proceeding.

Install the Starknet L2 Package

There are three posible nodes avaliable forStarknet

Pathfinder node

Cd into the starknet-stack project root and start the L2 execution client with this command:

docker compose -f dc-l2.yaml up -d It will take a while to sync, but you can always check it like so:

curl --location --request POST 'http://localhost:9545'

\ --header 'Content-Type: application/json'

\ --data-raw '{ "jsonrpc":"2.0", "method":"starknet_syncing", "params":[], "id":1 }' Inspect your output! Oncecurrent_block_num andhighest_block_num are the same, you've accomplished sync.

Juno node

Juno is a golang Starknet node implementation by Nethermind with the aim of decentralising Starknet.

Run with Docker

To run Juno with Docker, use the following command. Make sure to create the HOME/juno directory on your local machine before running the command.

docker run -d \ --name juno \ -p 6060 :6060 \ -v HOME /juno:/var/lib/juno \ nethermind/juno:latest \ --http \ --http-port 6060

\ --http-host 0.0 .0.0 \ --db-path /var/lib/juno \ --eth-node < YOUR-ETH-NODE

\ --pending-poll-interval = 3s You should replacewith your actual Ethereum node address.

The--pending-poll-interval parameter sets how frequently pending block will be updated.

!It is disabled by default, but should be enabled since lava version v0.27.0.

To view logs from the Docker container, use the following command:

docker logs -f juno

For more details, please visitofficial docs

Run the Indexer

/indexer/indexer.sh

Do a Test Transaction

As part of the Starknet documentation, it is recommended that you perform a test transaction to verify all the levels of Starknet are working and valid.

https://book.starknet.io/chapter_4/node.html

layer_4_transport_layer

That's it ! You're ready to serve RPC!

Apply to our Provider Incubation Program

In our current state of Testnet, there is an additional stage to pass through before you can become a provider on the Lava Network. Please fill out theapplication form for our Provider Incubation Program. Feel free to drop a line in ourDiscord once you've completed this step!

Setup your Provider on Lava Network

Once you've been accepted - to set up your provider on the Lava Network, you can refer to theprovider setup documentation available elsewhere in our docs. This should provide you with the necessary information to configure and operate your provider node. Edit this page Previous Getting Starknet RPC Next Developers