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Validator Overview

What is a Validator?

Validators are responsible for committing new blocks to the blockchain through voting. A validator's stake is slashed if they become unavailable or sign blocks at the same height. Please read about Sentry Node Architecture to protect your node from DDOS attacks and to ensure high-availability.

Join the ATOP Mainnet

Setup of a new Node

First, create two directories for configuration of a new node.

```
$ mkdir ~/.atopnode
$ mkdir ~/.atopcli
```

Next, run a docker exec "/bin/sh" command inside a docker container.

```
$ docker run -it -v ~/.atopnode:/home/atop/.atopnode -v ~/.atopcli:/home/atop/.atopcli --
```

Finally, initialize the node.

```
# Inside a docker container
$ atopnode init <moniker> --chain-id <chain-id>
```

- `moniker` : the displayed name of your node over ATOP network.
- `chain-id` : atopnet

Genesis & Seeds

Copy the Genesis File

Fetch the mainnet's `genesis.json` file into `atopnode`'s config directory.

```
$ wget --load-cookies ~/cookies.txt "https://docs.google.com/uc?export=download&confirm=s"
$ mv genesis.json ~/.atopnode/config
```

Add Seed Nodes

Your node needs to know how to find peers. You'll need to add healthy seed nodes to `~/.atopnode/config/config.toml`. So open `~/.atopnode/config/config.toml` file and edit seeds of [p2p] section.

```
##### peer to peer configuration options #####
[p2p]

...

# Comma separated list of seed nodes to connect to
seeds = "8db95441e82c9519fd1971436c652a7c8025c1eb@3.37.63.155:26656"
```

Run a Full Node

Start the full node with this command:

```
$ docker run -it -p 26657:26657 -p 26656:26656 -v ~/.atopnode:/home/atop/.atopnode -v ~/.atopcli:/home/atop/.atopcli --
```

You need to wait until blocks are fully synced. Check that everything is running smoothly:

```
# Inside a docker container
$ atopcli status
```

Create an account

Before creating validator, you should have an account for your node and validator.

Create new wallet

```
# Inside a docker container
atopcli keys add <name>
```

This command returns wallet address and mnemonic. Write the seed phrase in a safe place!

Get some coins

You need coins to be a validator.

Create-validator

You can find your validator pubkey by running:

```
atopnode tendermint show-validator
```

You can create a new validator by staking tokens.

```
# Inside a docker container
atopcli tx staking create-validator \
  --amount="100000uatop" \
  --pubkey=$(atopnode tendermint show-validator)" \
  --moniker="choose a moniker" \
  --chain-id=<chain_id> \
  --min-self-delegation="1" \
  --gas-prices="0.025uatop" \
  --from=<key_name>
```

Edit-validator

You can edit information of the validator.

```
# Inside a docker container
atopcli tx staking create-validator \
  --amount="100000uatop" \
  --pubkey=$(atopnode tendermint show-validator)" \
  --moniker="choose a moniker" \
  --chain-id=<chain_id> \
  --min-self-delegation="1" \
  --gas-prices="0.025uatop" \
  --from=<key_name>
```

Flags:

Name, shorthand	Description
--amount	Amount of coins to bond
--pubkey	The Bech32 encoded PubKey of the validator
--moniker	The validator's name
--chain-id	The network chain ID to connect
--min-self-delegation	The minimum self delegation required on the validator
--gas-prices	Gas prices to determine the transaction fee
--from	Name or address of private key with which to sign

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