

# Statesync

Got questions or need help with using state-sync properly?

- You can find help in Telegram [here](#)
- Visit the Secret Network Discord [here](#)
- and ask in #node-discussion or #node-support for help \* A complete to go command that should fit most needs can be found [at fast State-sync script](#) . Be aware that this script can also fail or cause problems. In that case please ask for help in the channels above. Statesync is a module built into the Cosmos SDK to allow validators to rapidly join the network by syncing your node with a snapshot enabled RPC from a trusted block height.

This greatly reduces the time required for a node to sync with the network from days to minutes. The limitations of this are that there is not a full transaction history, just the most recent state that the state-sync RPC has stored. An advantage of state-sync is that the database is very small in comparison to a fully synced node, therefore using state-sync to re-sync your node to the network can help keep running costs lower by minimizing storage usage.

By syncing to the network with state-sync, a node can avoid having to go through all the upgrade procedures and can sync with the most recent binary only.

## Mainnet Statesync

This documentation assumes you have followed the instructions for [Running a Full Node](#) . First, adjust the configuration to be compatible with state-sync:

Set IAVL-disable-fastnode

IAVL fast node must be disabled, otherwise the daemon will attempt to upgrade the database while state sync is occurring.

```
...
```

```
Copy sed -i.bak -e "s/^iavl-disable-fastnode = ./iavl-disable-fastnode = true/" HOME/.secretd/config/app.toml
```

```
...
```

Set correct snapshot-interval

To ensure that state-sync works on your node, it has to look for the correct snapshots that the snapshot RPC provides.

```
...
```

```
Copy sed -i.bak -e "s/^snapshot-interval = ./snapshot-interval = 2000/" -e "s/^snapshot-keep-recent = ./snapshot-keep-recent = 3/" HOME/.secretd/config/app.toml
```

```
...
```

Assign And Verify Variables

SNAP\_RPC is the RPC node endpoint that is used for statesyncing

```
...
```

```
Copy SNAP_RPC="https://rpc.statesync.secretsaturn.net:443"
```

```
...
```

Set the state-sync BLOCK\_HEIGHT and fetch the TRUST\_HASH from the snapshot RPC. The BLOCK\_HEIGHT to sync is determined by finding the latest block that's a multiple of snapshot-interval.

```
...
```

```
Copy SNAP_RPC="https://rpc.statesync.secretsaturn.net:443"&& BLOCK_HEIGHT=(curl-s$SNAP_RPC/block|jq-r.result.block.header.height|awk '{print 1 - (1 % 2000-3)}')&& TRUST_HASH=(curl-s$SNAP_RPC/block?height=$BLOCK_HEIGHT"|jq-r.result.block_id.hash)
```

```
echo$BLOCK_HEIGHT $TRUST_HASH
```

```
...
```

The output should be similar to:

```
...
```

Copy

**11238000**

**B342DB8A2B603F528F1F6372FE088F48D8FD0B8CD2FFB7E6B96EEDF9B804BA5B**

```
...
```

Set Variables In ~/.secretd/config/config.toml

```
...
```

```
Copy sed-i.bak-E"s|^enable[:space:]]+=[:space:]]+.\|1true| ; \| s/^rpc_servers[:space:]]+=[:space:]]+.\|1"http://rpc.statesync1.secretsaturn.net:26657,http://rpc.statesync2.secretsaturn.net:26657,http://rpc.statesync3.secretsaturn.net:26657"| ; \| s/^trust_height[:space:]]+=[:space:]]+.\|1BLOCK_HEIGHT| ; \| s/^trust_hash[:space:]]+=[:space:]]+.\|1"TRUST_HASH"|HOME/.secretd/config/config.toml
```

```
...
```

Reset Database And Stop Node

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- 

This will erase your node database. If you are already running validator, be sure you backed up your config/priv\_validator\_key.json prior to running unsafe-reset-all .

It is recommended to copy the signing state of the node by copying data/priv\_validator\_state.json and only running unsafe-reset-all to avoid potential double signing. The code below stops the node, resets the temporary directory and resets the node into a fresh state.

```
...
```

```
Copy sudo systemctl stop secret-node && sudo mount -l /tmp && sudo mount -t tmpfs -o size=12G,mode=1777 overflow/tmp && sudo rm -rf HOME/.secret/.compute && sudo rm -rf HOME/.secret/.data && mkdir HOME/.secret/.data && secretctl tendermint unsafe-reset-all --home HOME/.secret && mkdir HOME/.secret/.data/snapshots/
```

...

Restart Node And Check Logs

This generally takes several minutes to complete, but has been known to take up to 24 hours. To better help the process along, [see here](#).

...

Copy sudo systemctl restart secret-node && journalctl -f -u secret-node

...

Expected State Sync Output

In case state-sync fails

When state-sync fails, you can restart the process and try again using the condensed script below. This usually fixes some of the random problems with it:

...

```
Copy SNAP_RPC="https://rpc.statesync.secretsaturn.net:443" && BLOCK_HEIGHT=(curl -s SNAP_RPC/block | jq -r .result.block.header.height | awk '{print 1 - (1 % 2000 - 3)}') && TRUST_HASH=(curl -s "SNAP_RPC/block?height=BLOCK_HEIGHT" | jq -r .result.block_id.hash) && sed -i.bak -E "s|^(\(enable[:space:]\|+[:space:]\|+)./1true/; \| s|^(\(rpc_servers[:space:]\|+[:space:]\|+)./1http://rpc.statesync1.secretsaturn.net:26657,http://rpc.statesync2.secretsaturn.net:26657,http://rpc.statesync3.secretsaturn.net:26657/"; \| s|^(\(trust_height[:space:]\|+[:space:]\|+)./1BLOCK_HEIGHT/; \| s|^(\(trust_hash[:space:]\|+[:space:]\|+)./1TRUST_HASH/"HOME/.secretd/config/config.toml && echo BLOCK_HEIGHT TRUST_HASH && sudo systemctl stop secret-node && sudo mount -l /tmp && sudo mount -t tmpfs -o size=12G,mode=1777 overflow/tmp && sudo rm -rf HOME/.secret/.compute && sudo rm -rf HOME/.secret/.data && mkdir HOME/.secret/.data && secretctl tendermint unsafe-reset-all --home HOME/.secret && mkdir HOME/.secret/.data/snapshots && sudo systemctl restart secret-node && journalctl -f -u secret-node
```

...

Fast State-sync script

To save time, you can use this script to quickly init everything you need for statesync. Please be aware that this might be dangerous if you have a validator. ``

```
Copy sed -i.bak -E "s|^(\(avl-disable-fastnode = ./avl-disable-fastnode = true/"HOME/.secretd/config/app.toml && sed -i.bak -E "s|^(\(snapshot-interval = ./snapshot-interval = 2000/" -E "s|^(\(snapshot-keep-recent = ./snapshot-keep-recent = 3/"HOME/.secretd/config/app.toml && SNAP_RPC="https://rpc.statesync.secretsaturn.net:443" && BLOCK_HEIGHT=(curl -s SNAP_RPC/block | jq -r .result.block.header.height | awk '{print 1 - (1 % 2000 - 3)}') && TRUST_HASH=(curl -s "SNAP_RPC/block?height=BLOCK_HEIGHT" | jq -r .result.block_id.hash) && sed -i.bak -E "s|^(\(enable[:space:]\|+[:space:]\|+)./1true/; \| s|^(\(rpc_servers[:space:]\|+[:space:]\|+)./1http://rpc.statesync1.secretsaturn.net:26657,http://rpc.statesync2.secretsaturn.net:26657,http://rpc.statesync3.secretsaturn.net:26657/"; \| s|^(\(trust_height[:space:]\|+[:space:]\|+)./1BLOCK_HEIGHT/; \| s|^(\(trust_hash[:space:]\|+[:space:]\|+)./1TRUST_HASH/"HOME/.secretd/config/config.toml && echo BLOCK_HEIGHT TRUST_HASH && sudo systemctl stop secret-node && sudo mount -l /tmp && sudo mount -t tmpfs -o size=12G,mode=1777 overflow/tmp && sudo rm -rf HOME/.secret/.compute && sudo rm -rf HOME/.secret/.data && mkdir HOME/.secret/.data && secretctl tendermint unsafe-reset-all --home HOME/.secret && mkdir HOME/.secret/.data/snapshots && sudo systemctl restart secret-node && journalctl -f -u secret-node
```

...

Last updated 7 months ago On this page \* [Mainnet Statesync](#) \* [Assign And Verify Variables](#) \* [Set Variables In ~/.secretd/config/config.toml](#) \* [Reset Database And Stop Node](#) \* [Restart Node And Check Logs](#) \* [In case state-sync fails](#) \* [Fast State-sync script](#)

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