

# Start Besu

Use the [besu](#) command with the required command line options to start a node.

## Prerequisites

[Besu installed](#)

## Local block data

When connecting to a network other than the network previously connected to, you must either delete the local block data or use the [--data-path](#) option to specify a different data directory.

To delete the local block data, delete the database directory in the besu/build/distribution/besu-directory.

## Genesis configuration

To define a genesis configuration, create a [genesis file](#) (for example, genesis.json ) and specify the file using the [--genesis-file](#) option.

When you specify [--network=dev](#) , Besu uses the development mode genesis configuration with a fixed low difficulty. A node started with [--network=dev](#) has an empty bootnodes list by default.

Predefined genesis configurations for named networks are in the [Besu source files](#) .

## Confirm node is running

If you started Besu with the [--rpc-http-enabled](#) option, use [curl](#) to call [JSON-RPC API methods](#) to confirm the node is running.

- eth\_chainId
- returns the chain ID of the network.
- curl -X POST --data '{"jsonrpc":"2.0","method":"eth\_chainId","params":[],"id":1}' localhost:8545
- eth\_syncing
- returns the starting, current, and highest block.
- curl -X POST --data '{"jsonrpc":"2.0","method":"eth\_syncing","params":[],"id":1}' localhost:8545
- For example, after connecting to Mainnet, eth\_syncing
- will return something similar to:
- {
- "jsonrpc": "2.0",
- "id": 1,
- "result": {
- "startingBlock": "0x0",
- "currentBlock": "0x2d0",
- "highestBlock": "0x66c0"
- }
- }

## Run a node for testing

To run a node that mines blocks at a rate suitable for testing purposes:

besu --network=dev --miner-enabled --miner-coinbase=0xfe3b557e8fb62b89f4916b721be55ceb828dbd73 --rpc-http-cors-origins="all" --host-allowlist="\*" --rpc-ws-enabled --rpc-http-enabled --data-path=/tmp/tmpDataDir You can also use the following [configuration file](#) on the command line to start a node with the same options as above:

## network

"dev" miner-enabled = true miner-coinbase = "0xfe3b557e8fb62b89f4916b721be55ceb828dbd73" rpc-http-cors-origins = [ "all" ] host-allowlist = [ "\*" ] rpc-ws-enabled = true rpc-http-enabled = true data-path = "/tmp/tmpdata-path" caution The following settings are a security risk in production environments:

- Enabling the HTTP JSON-RPC service ([--rpc-http-enabled](#)
- ) and setting [--rpc-http-host](#)

- to 0.0.0.0 exposes the RPC connection on your node to any remote connection.
- Setting [--host-allowlist](#)
- to "\*"
  - allows JSON-RPC API access from any host.
- Setting [--rpc-http-cors-origins](#)
- to "all"
  - or "\*"
    - allows cross-origin resource sharing (CORS) access from any domain.

## Run a node on a private network

To run a node on your private network specifying a genesis file and data directory:

`besu --genesis-file=/genesis.json --data-path= --rpc-http-enabled --bootnodes=` Where is the path to the directory to save the chain data to. Ensure you configure a peer discovery method, such as [bootnodes](#) .

note You might need to set [-tx-pool-limit-by-account-percentage](#) to 1. The default value is suitable for Mainnet, but may cause issues on private networks. [Edit this page](#) Last updated on Apr 18, 2024 [Previous](#) [Install binary distribution](#) [Next](#) [How to](#)