

# Client Setting Requirements

## Supported Clients

BlockScout currently supports Erigon, Nethermind, Geth, Parity, OpenEthereum, Hyperledger Besu, and Ganache clients. To define the node variant, it's advised to define the `ETHEREUM_JSONRPC_VARIANT` environment variable. Correct values include:

1. parity
2. the same for Parity, OpenEthereum and Nethermind (default)
3. erigon
4. geth
5. besu
6. ganache
- 7.

BlockScout currently requires a full archive node in order to import every state change for every address on the target network.

## Development

Explorer: <https://github.com/poanetwork/blockscout/blob/master/apps/explorer/config/dev.exs>

Indexer: <https://github.com/poanetwork/blockscout/blob/master/apps/indexer/config/dev.exs>

...

```
Copy variant = if is_nil(System.get_env("ETHEREUM_JSONRPC_VARIANT")) do "ganache" else
System.get_env("ETHEREUM_JSONRPC_VARIANT") |> String.split(".") |> List.last() |> String.downcase() end
```

...

## Production

Explorer: <https://github.com/poanetwork/blockscout/blob/master/apps/explorer/config/dev.exs>

Indexer: <https://github.com/poanetwork/blockscout/blob/master/apps/indexer/config/prod.exs>

...

```
Copy variant = if is_nil(System.get_env("ETHEREUM_JSONRPC_VARIANT")) do "parity" else
System.get_env("ETHEREUM_JSONRPC_VARIANT") |> String.split(".") |> List.last() |> String.downcase() end
```

...

## OpenEthereum Client

...

```
Copy --jsonrpc-interface all --jsonrpc-apis web3,eth,net,parity,pubsub,traces --ws-interface all --fat-db=on --pruning=archive --ws-apis all --ws-origins all --ws-hosts all
```

...

Name Environment Variable Default Value Description HTTP Endpoint `ETHEREUM_JSONRPC_HTTP_URL` <http://localhost:8545> The HTTP Endpoint is used to fetch blocks, transactions, receipts, coin/token balances. Tracing Endpoint `ETHEREUM_JSONRPC_TRACE_URL` <http://localhost:8545> The Tracing endpoint is used to fetch internal transactions and block traces. In most cases this endpoint is identical to the HTTP Endpoint. WebSockets Endpoint `ETHEREUM_JSONRPC_WS_URL` `ws://localhost:8546` The WebSockets endpoint subscribes to new heads which alerts the indexer to fetch the new block from the subscription.

## Development

Explorer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/explorer/config/dev/parity.exs#L8-L22>

Indexer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/indexer/config/dev/parity.exs#L9-L23>

## Production

Explorer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/explorer/config/prod/parity.exs#L8-L22>

Indexer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/indexer/config/prod/parity.exs#L9-L23>

## Geth Client

More information on Geth JSON-RPC [available here](#).

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```
Copy sudo /usr/bin/geth --http --http.addr 0.0.0.0 --port 30303 --http.port 8545 --http.api debug,net,eth,shh,web3,txpool --ws.api
"eth,net,web3,network,debug,txpool" --ws --ws.addr 0.0.0.0 --ws.port 8546 --ws.origins "" --sepolia --datadir=/rinkeby --syncmode "full" --gcmode
```

"archive" --http.vhosts ""

...

Tracing and pruning: By default, state for the last 128 blocks kept in memory. Most states are garbage collected. If you are running a block explorer or other service relying on transaction tracing without an archive node (--gcmode=archive), you need to trace within this window! Alternatively, specify the "reexec" tracer option to allow regenerating historical state; and ideally switch to chain tracing which amortizes overhead across all traced blocks.

Name	Environment Variable	Default Value	Description
HTTP Endpoint	ETHEREUM_JSONRPC_HTTP_URL	<a href="http://localhost:8545">http://localhost:8545</a>	The HTTP Endpoint is used to fetch blocks, transactions, receipts, coin/token balances.
WebSockets Endpoint	ETHEREUM_JSONRPC_WS_URL	<a href="ws://localhost:8546">ws://localhost:8546</a>	The WebSockets endpoint subscribes to newHeads which alerts the indexer to fetch the new block from the subscription.

#### Development

Explorer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/explorer/config/dev/geth.exs#L8-L17>

Indexer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/indexer/config/dev/geth.exs#L9-L18>

#### Production

Explorer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/explorer/config/prod/geth.exs#L8-L17>

Indexer: <https://github.com/poanetwork/blockscout/blob/59d8423e7ca3f608dbea411d4a0dc9bb4662a891/apps/indexer/config/prod/geth.exs#L9-L18>

Last updated 1 month ago