

Client Setting Requirements

Supported JSON RPC Clients

BlockScout currently supports [Geth](#), [Erigon](#), [Nethermind](#), [Reth](#), [Besu](#), [RSKj](#), [Lotus](#), and [Ganache](#) JSON RPC clients. To define the JSON RPC node variant, it's advised to define the `ETHEREUM_JSONRPC_VARIANT` environment variable*. Correct values include:

JSON RPC Client Value Note
Geth `geth` Default. This value is applicable for both Geth and Reth JSON RPC clients
Erigon `erigon` It is suggested to use `erigon` variant for Reth JSON RPC client.
Nethermind `nethermind` This value is applicable for Reth and deprecated OpenEthereum (aka Parity) JSON RPC clients
Besu `besu`
RSKj `rsk`
Lotus `filecoin`
Ganache `ganache`
*If the variable is not set, JSON RPC variant will be chosen based on `CHAIN_TYPE` variable according to the mapping
https://github.com/blockscout/blockscout/blob/a2625803c831fb86e38ffe0e28d94bfd697914ce/apps/ethereum_jsonrpc/lib/ethereum_jsonrpc/variant.ex#L114-L120

...

```
Copy defp get_default_variant do
  case Application.get_env(:explorer, :chain_type) do
    :rsk -> "rsk"
    :filecoin -> "filecoin"
    _ -> "geth"
  end
end
```

...

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

Configs

Application Environment Config path Explorer Dev ? Prod ? Indexer Dev ? Prod ?

Variables to connect to JSON RPC client

Name	Environment Variable	Default Value	Description
HTTP Endpoint	<code>ETHEREUM_JSONRPC_HTTP_URL</code>	<code>http://localhost:8545</code>	The HTTP Endpoint is used to fetch blocks, transactions, receipts, coin/token balances. Fallback HTTP Endpoint
ETHEREUM_JSONRPC_FALLBACK_HTTP_URL	<code>ETHEREUM_JSONRPC_FALLBACK_HTTP_URL</code>	(empty)	Fallback JSON RPC HTTP url. Tracing Endpoint
ETHEREUM_JSONRPC_TRACE_URL	<code>ETHEREUM_JSONRPC_TRACE_URL</code>	<code>http://localhost:8545</code>	The Tracing endpoint is used to fetch internal transactions and block traces. In most cases this endpoint is identical to the HTTP Endpoint. Fallback Tracing Endpoint
ETHEREUM_JSONRPC_FALLBACK_TRACE_URL	<code>ETHEREUM_JSONRPC_FALLBACK_TRACE_URL</code>	(empty)	Fallback JSON RPC tracing url. Eth_call Requests Endpoint
ETHEREUM_JSONRPC_ETH_CALL_URL	<code>ETHEREUM_JSONRPC_ETH_CALL_URL</code>	(empty)	JSON RPC url for eth_call method requests. Fallback Eth_call Requests Endpoint
ETHEREUM_JSONRPC_FALLBACK_ETH_CALL_URL	<code>ETHEREUM_JSONRPC_FALLBACK_ETH_CALL_URL</code>	(empty)	Fallback JSON RPC eth_call url. WebSockets Endpoint
ETHEREUM_JSONRPC_WS_URL	<code>ETHEREUM_JSONRPC_WS_URL</code>	<code>ws://localhost:8546</code>	The WebSockets endpoint subscribes to newHeads which alerts the indexer to fetch the new block from the subscription.

Geth

More information on Geth JSON-RPC [is 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 ""
```

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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.

Erigon

More information on Erigon configuration [is available here](#).

Nethermind

More information on Nethermind configuration [is available here](#).

Reth

More information on Reth configuration [is available here](#).

RSKj

More information on RSKj configuration [is available here](#).

Besu

More information on Besu configuration [is available here](#).

Lotus

More information on Lotus configuration [is available here](#).

OpenEthereum

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```
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
```

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Last updated 3 months ago

