How do I fix indexer timeouts?

BlockScout utilizes two separate indexers in order to index the network history as well as keep up with new incoming blocks. Due to this process, a node may become overloaded and not respond to BlockScout's RPC requests within the designated timeout period.

The indexer umbrella application can be tweaked to meet your node's size and responsiveness. Outlined below are the locations and adjustments that can be made to each fetcher.

Fetchers are available athttps://github.com/blockscout/blockscout/tree/master/apps/indexer/lib/indexer/fetcher

Fetcher Description Batch size Concurrency Catchup Block Fetcher This fetcher indexes blocks, transactions and receipts starting from the tip of the chain working backward to the Genesis block. 10INDEXER_CATCHUP_BLOCKS_BATCH_SIZE 10INDEXER_CATCHUP_BLOCKS_CONCURRENCY Transaction Receipts Fetcher Transaction receipts fetcher. 250INDEXER_RECEIPTS_BATCH_SIZE 10INDEXER_RECEIPTS_CONCURRENCY Internal Transaction Fetcher This fetcher indexes internal transactions. For the real-time fetcher this process is done synchronously and for the catchup fetcher, this process is done asynchronously. 10INDEXER_INTERNAL_TRANSACTIONS_BATCH_SIZE 4INDEXER_INTERNAL_TRANSACTIONS_CONCURRENCY Coin Balance Fetcher This fetcher indexes each coin balance at the block height the address was interacted with. 100INDEXER_COIN_BALANCES_BATCH_SIZE 4INDEXER_COIN_BALANCES_CONCURRENCY Uncle Block Fetcher This fetcher indexes non-consensus blocks, transactions, and receipts. 10 10 Token Balance Fetcher This fetcher indexes token balances. Note you may experience some token balances that cannot be fetched due to a malformed smart contract or other functions that do not allow a balance to be fetched. 100INDEXER_TOKEN_BALANCES_BATCH_SIZE 10INDEXER_TOKEN_BALANCES_CONCURRENCY Token Fetcher This indexer fetches the metadata for a token contract 1 10Block Reward Fetcher Block reward fetcher. 10INDEXER_BLOCK_REWARD_BATCH_SIZE 10INDEXER_BLOCK_REWARD_CONCURRENCY Token Instance Realtime Fetcher Token instance realtime fetcher. 1INDEXER_TOKEN_INSTANCE_REALTIME_BATCH_SIZE 10INDEXER_TOKEN_INSTANCE_REALTIME_CONCURRENCY Token Instance Retry Fetcher Token instance retry fetcher. 10INDEXER_TOKEN_INSTANCE_RETRY_CONCURRENCY 10INDEXER_TOKEN_INSTANCE_RETRY_BATCH_SIZE Token Instance Sanitize Fetcher Token instance sanitize fetcher. 10INDEXER_TOKEN_INSTANCE_SANITIZE_BATCH_SIZE 10INDEXER_TOKEN_INSTANCE_SANITIZE_CONCURRENCY

Understanding Errors and Timeouts

```
application=indexer fetcher=coin_balance count=500 error_count=500 [error] failed to fetch: :timeout
```

In the error provided above, we can tell that theindexer application failed to fetch500 coin balances due to atimeout error. Usually, when an indexer starts to receive timeouts, many more timeouts from other fetchers will occur as well.

Resolving Timeout Issues

The best action to take when fetchers start to receive timeouts is to lower the batch size and concurrency of a few fetchers which will put less pressure on the node.

The two indexers that cause the most strain to the node are the block fetcher and the internal transactions fetcher. It would be advised to cut these fetchers values in half and restart the application. A restart of the node may also be required.

Other Actions

BlockScout comes equipped with functionality to automatically stop sending requests forn seconds if timeouts are detected. You may adjust these settings by setting a different value forwait_per_timeout .

https://github.com/poanetwork/blockscout/blob/1475e3bfd002d9397efd0f0cc29c20f39a70d023/apps/ethereum_jsonrpc/config/config.exs#L3-L9

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