# #

IRIS Hub Monitor

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Introduction

IRIShub can report and serve the Prometheus metrics, which can be consumed by Prometheus collector(s).

This functionality is disabled by default.

To enable the Prometheus metrics, setprometheus = true in your config file(config.toml). Metrics will be served under /metrics on 26660 port by default. This port can be changed in the config file (prometheus_listen_addr = ":26660").

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Metrics

Application metrics, namespace:iris

Name Type Tags Description module_stake_bonded_token Gauge validator_address Total bonded token by validator module_stake_loosen_token Gauge

Total loose tokens module_stake_burned_token Gauge

Total burned token module_stake_slashed_token Counter validator_address Total slashed token by validator module_stake_jailed Gauge validator_address Jailed status by validator, either 0 (not jailed) or 1 (jailed) module_stake_power Gauge validator_address Voting power by validator module_upgrade_upgrade Gauge

Whether new software needs to be installed, either 0 (no) or 1 (yes) module_upgrade_signal Gauge validator_address, version Whether validator have run the new version software, either 0 (no) or 1 (yes) module_service_active_requests Gauge

Number of active requests module_gov_parameter Gauge parameter_key Parameter of governance module_gov_proposal_status Gauge proposal_id Status of proposal, 0:DepositPeriod 1:VotingPeriod 2:Pass 3:Reject 4:Other module_gov_vote Gauge proposal_id, validator_address Validator vote result of a proposal, 0:Yes 1:No 2:NoWithVeto 3:Abstain module_distribution_community_tax Gauge height Community tax accumulation v0_invariant_failure Counter error Invariant failure stats Consensus metrics, namespace:tendermint

Name Type Tags Description consensus_height Gauge

Height of the chain consensus_failure Counter height Consensus failure consensus_validators Gauge

Number of validators consensus_validators_power Gauge

Total voting power of all validators consensus_missing_validators Gauge

Number of validators who did not sign consensus_missing_validators_power Gauge

Total voting power of the missing validators consensus_byzantine_validators Gauge

Number of validators who tried to double sign consensus_byzantine_validators_power Gauge

Total voting power of the byzantine validators consensus_block_interval_seconds Histogram

Time between this and last block (Block.Header.Time) in seconds consensus_rounds Gauge

Number of rounds consensus_num_txs Gauge

Number of transactions consensus_block_parts Counter peer_id Number of blockparts transmitted by peer consensus_latest_block_height Gauge

/status sync_info number consensus_fast_syncing Gauge

Either 0 (not fast syncing) or 1 (syncing) consensus_total_txs Gauge

Total number of transactions committed consensus_block_size_bytes Gauge

Block size in bytes p2p_peers Gauge

Number of peers node's connected to p2p_peer_receive_bytes_total Counter peer_id Number of bytes received from a given peer p2p_peer_send_bytes_total Counter peer_id Number of bytes sent to a given peer p2p_peer_pending_send_bytes Gauge peer_id Number of pending bytes to be sent to a given peer p2p_num_txs Gauge peer_id Number of transactions submitted by each peer_id mempool_size Gauge

Number of uncommitted transactions mempool_tx_size_bytes Histogram

Transaction sizes in bytes mempool_failed_txs Counter

Number of failed transactions mempool_recheck_times Counter

Number of transactions rechecked in the mempool state_block_processing_time Histogram

Time between BeginBlock and EndBlock in ms state_recheck_time Histogram

Time cost on recheck in ms state_app_hash_conflict Counter proposer, height App hash conflict error IRIShub metrics also contains tendermint metrics, Visit tendermint metricsopen in new window for more information.

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Start Monitor

This is an example for getting started with the IRIShub Monitor by using docker.

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Edit Prometheus config file

You can download the example prometheus.ymlopen in new window to the ~/volumes/prometheus/ and add a job under the scrape_configs of the prometheus.yml :

- job_name : irishubstatic_configs : - targets : ['localhost:26660'] labels : instance : myvalidator TIP

The value of targets is the prometheus_listen_addr in your config.toml

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Start Prometheus

docker run-d --name = prometheus-p 9090 :9090-v ~/volumes/prometheus:/etc/prometheus prom/prometheus You should be able to browse to a status page about prometheus at http://localhost:9090open in new window

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Start Grafana

docker run-d --name = grafana-p 3000 :3000 grafana/grafana You can visit http://localhost:3000/open in new window to open grafana and create your own dashboard.

TIP

The default username and password are both admin. We strongly recommend immediately changing your username & password after login.

A Grafana dashboard compatible with all the cosmos-sdk and tendermint based blockchains cosmos-dashboardopen in new window