

# AIM<sup>1</sup>-003: Genesis Parameter Files

liayoo 2021-01-29

## Problem Description

- The parameters for the blockchain protocol, consensus protocol, etc. are all combined with other constants and enums in constants.js files.
- It is difficult to tweak all the parameters with command line options and environment variables.

## Proposed Changes

### AS-IS

- common/constants.js
- consensus/constants.js

### TO-BE

- genesis\_testnet.json

```
{
  "blockchain": {
    "MAX_TX_BYTES": 10000,
    "TRANSACTION_POOL_TIMEOUT_MS": 3600000,
    "TRANSACTION_TRACKER_TIMEOUT_MS": 86400000,
    "NETWORK_ID": "Testnet",
    "HOSTING_ENV": "local",
    "COMCOM_HOST_EXTERNAL_IP": "",
    "COMCOM_HOST_INTERNAL_IP_MAP": {
      "aincom1": "192.168.1.13",
      "aincom2": "192.168.1.14",
    },
    "TRACKER_WS_ADDR": "ws://localhost:5000",
    "MAX_SHARD_REPORT": 100
  },
  "consensus": {
    "MIN_STAKE_PER_VALIDATOR": 100,
  }
}
```

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<sup>1</sup> AI Network Improvement Memo. Visit <https://docs.ainetwork.ai> for the full list.

```

    "EPOCH_MS": 3000,
    "GENESIS_WHITELIST": {
      "0x00ADec28B6a845a085e03591bE7550dd68673C1C": true,
      "0x01A0980d2D4e418c7F27e1ef539d01A5b5E93204": true,
      "0x02A2A1DF4f630d760c82BE07F18e5065d103Fa00": true,
      "0x03AAb7b6f16A92A1dfe018Fe34ee420eb098B98A": true,
      "0x04A456C92A880cd59D7145C457475515a6f6E0f2": true
    },
    "GENESIS_VALIDATORS": {
      "0x00ADec28B6a845a085e03591bE7550dd68673C1C": 250,
      "0x01A0980d2D4e418c7F27e1ef539d01A5b5E93204": 250,
      "0x02A2A1DF4f630d760c82BE07F18e5065d103Fa00": 250,
      "0x03AAb7b6f16A92A1dfe018Fe34ee420eb098B98A": 250,
      "0x04A456C92A880cd59D7145C457475515a6f6E0f2": 250
    }
  }
}

```

- genesis\_mainnet.json
- Use separate genesis files for different use cases, such as unit tests and integration tests (e.g. genesis\_utest.json, genesis\_itest.json)

## Links

- [Cosmos genesis.json](#)
- [Cosmos genesis template](#)
- [Ethereum private network examples](#)
- <https://github.com/ethereum/EIPs/issues/1085>
- <https://gist.github.com/0mkara/b953cc2585b18ee098cd>

## Document History

Date	Who	Change	Notes
2021-01-29	liayoo	Initial draft	
2021-02-02	liayoo, platfowner, minsulee2, cshcomcom, shyun-comcom	Internal review	
2021-05-13	platfowner	Published	

