AIM[1]-007: State vs. Status

platfowner 2020-02-23

Problem Description

- Mixed use of 'state' and 'status'

Proposed Changes

AS-IS

- node/index.js
  - this.status = BlockchainNodeStatus.STARTING
- common/constants.js
  - const BlockchainNodeStatus = { ... }
- consensus/index.js
  - this.status = ConsensusStatus.STARTING
  - this.state = {
        epoch: 1,
        proposer: null
    }
- consensus/constants.js
  - const ConsensusStatus = { ... }
- p2p/index.js
  -

```
getStatus() {
   const blockStatus = this.server.getBlockStatus();
   return {
     address: this.server.getNodeAddress(),
     updatedAt: Date.now(),
     lastBlockNumber: blockStatus.number,
     networkStatus: this.getNetworkStatus(),
     blockStatus: blockStatus,
     txStatus: this.server.getTxStatus(),
     consensusStatus: this.server.getConsensusStatus(),
     nodeStatus: this.server.getNodeStatus(),
     shardingStatus: this.server.getShardingStatus(),
     memoryStatus: this.server.getMemoryUsage(),
     diskStatus: this.server.getDiskUsage(),
     runtimeInfo: this.server.getRuntimeInfo(),
     protocolInfo: this.getProtocolInfo(),
```

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[1] AI Network Improvement Memo. Visit https://docs.ainetwork.ai for the full list.

```
        };
    }
```

○

TO-BE

- "State" in enum definition

```
const BlockchainNodeState = { ... }
const ConsensusState = { ... }
```

- "State" in this

```
this.state = BlockchainNodeState.STARTING
this.state = ConsensusState.STARTING
```

- "Status" in wider use cases

Links

- Status vs. state (link) - What is the **status** of X? What sort of **state** is X in?
- A blog posting (link) - **State** is a definition, and **status** is an instance of that definition.

```
enum H2OStates
{
    Solid,
    Liquid,
    Gas
}

class H2O
{
    public const H2OStates IceState = H2OStates.Solid;
    public const H2OStates WaterState = H2OStates.Liquid;
    public const H2OStates VaporState = H2OStates.Gas;

    public H2OStates Status;
}
```

Document History

Date	Who	Change	Notes
2021-02-23	platfowner	Initial draft	
2021-02-23	platfowner, liayoo, minsulee2,	Internal review	

	cshcomcom, shyun-comcom		
2021-05-13	platfowner	Published	