

CLAIMS

1. A method for blockchain-based data processing, the method comprising:

obtaining, (101) by a blockchain node of a blockchain network, first service data;

determining (101, 202), by the blockchain node, an attribute value of the first service data,

5 wherein the attribute value is used to represent uniqueness of the first service data;

determining (102, 203), by the blockchain node, based on (i) attribute values stored in a processed database of second service data that has been processed and (ii) the attribute value of the first service data, whether the first service data has been processed; and

in response to determining that the first service data has been processed:

10 broadcasting, by the blockchain node, information that the first service data has been processed to at least one additional blockchain node of the blockchain network, wherein the at least one additional blockchain node discards processing of the first service data upon receiving the information from the blockchain node; and

discarding, by the blockchain node, processing of the first service data; and

15 in response to determining that the first service data has not been processed:

storing, by the blockchain node, the attribute value of the first service data in the processed database, wherein the processed database stores attribute values of service data that has been processed, and the processed database is shared in the blockchain network and accessible by any blockchain node in the blockchain network;

20 determining, by the blockchain node, a query index of the attribute value of the first service data;

determining a mapping relationship between the query index and the attribute value of the first service data, wherein the mapping relationship and the query index are used to lookup the attribute value in the processed database;

25 broadcasting (205), by the blockchain node, the first service data to another blockchain node in the blockchain network; and

obtaining, by the blockchain node, a predetermined amount of stored service data comprising the first service data.

2. The method according to claim 1, wherein determining whether the first service data has been processed comprises:

querying, by the blockchain node in the stored attribute values of the second service data that has been processed, for whether there is an attribute value that is same as the attribute value of the first service data; and

determining, by the blockchain node based on a query result of the querying, whether the first service data has been processed.

3. The method according to claim 2, wherein determining, by the blockchain node, that the first service data has not been processed comprises:

determining, by the blockchain node, that the first service data has not been processed in response to determining that no attribute value is found to be same as the attribute value of the first service data from the stored attribute values of the second service data that has been processed.

4. The method according to claim 2, wherein determining, by the blockchain node, that the first service data has been processed comprises:

determining, by the blockchain node, that the first service data has been processed in response to determining that the attribute value is found to be same as the attribute value of the first service data from the stored attribute values of the second service data that has been processed; and

determining that the first service data is invalid service data.

5. The method according to claim 1, further comprising:

storing, by the blockchain node, the attribute value of the first service data.

6. The method according to any one of claims 1 to 5, wherein the processed database is a relational database or a key-value database.

7. The method according to any one of claims 1 to 6, wherein the attribute value is obtained when the first service data is generated.

8. The method according to any one of claims 1 to 6, wherein the attribute value comprises one or more of a hash value of the first service data and a serial number of the first service data.

9. The method according to claim 1, wherein the attribute value comprises an encrypted data.

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10. A device for blockchain-based data processing, the device comprising a plurality of modules configured to perform the method of any one of claims 1 to 9.