Claims

1. A method for processing a transaction request, implementable by a first transaction node, the method comprising:

acquiring transaction data of a target transaction that a plurality of transaction nodes participate in;

determining a transaction abstract according to a data abstract that is generated based at least on the transaction data and that is digitally signed by all transaction nodes that participate in the target transaction, including each of the plurality of transaction nodes, wherein the transaction data cannot be obtained reversely through the data abstract, and wherein the plurality of transaction nodes comprise at least the first transaction node and one or more second transaction nodes;

generating a transaction request that comprises the transaction abstract and does not comprise the transaction data, the transaction abstract enabling consensus verification without the transaction data; and

broadcasting the transaction request to consensus nodes, causing the consensus nodes to each save the transaction abstract in the transaction request into a blockchain after the transaction abstract passes the consensus verification, wherein the plurality of transaction nodes and the consensus nodes are blockchain nodes of a blockchain network.

2. The method according to claim 1, wherein, when the target transaction is initiated by the first transaction node, determining the transaction abstract according to the transaction data comprises:

sending the data abstract to the one or more second transaction nodes;

acquiring the data abstract after the second transaction nodes each digitally sign the data abstract; and

determining the transaction abstract according to the acquired digitally signed data abstract.

3. The method according to claim 1, wherein, when the target transaction is initiated by any of one or more second transaction nodes, determining the transaction abstract according to the transaction data comprises:

receiving the data abstract from the initiating second transaction node;

verifying the data abstract according to the transaction data;

digitally signing, if the data abstract passes the verification, the data abstract to obtain a

first abstract; and

upon receiving second abstracts obtained after the second transaction nodes each digitally sign the data abstract, determining the transaction abstract according to the first abstract and the second abstracts.

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

saving the transaction data into a private database corresponding to the first transaction node.

5. The method according to claim 4, wherein the target transaction is initiated by the first transaction node, and the method further comprises:

sending the transaction data to the one or more second transaction nodes, causing each of the second transaction nodes to save the transaction data into a private database corresponding to the second transaction node.

6. A non-transitory computer-readable storage medium storing instructions that, when executed by a processor of a first transaction node, cause the processor to perform the method of any one of claims 1 to 5.

7. An apparatus, implementable as a first transaction node, comprising a processor and a non-transitory computer readable storage medium storing instructions that, when executed by the processor, cause the apparatus to perform a method for processing a transaction request, the method comprising:

acquiring transaction data of a target transaction that a plurality of transaction nodes participate in, wherein the first transaction node participates in the target transaction;

determining a transaction abstract according to a data abstract that is generated based at least on the transaction data and that is digitally signed by all transaction nodes that participate in the target transaction, including each of the plurality of transaction nodes, wherein the transaction data cannot be obtained reversely through the data abstract, and wherein the transaction nodes comprise at least the first transaction node and one or more second transaction nodes;

generating a transaction request that comprises the transaction abstract and does not comprise the transaction data, the transaction abstract enabling consensus verification without the transaction data; and

broadcasting the transaction request to consensus nodes, causing the consensus nodes to each save the transaction abstract in the transaction request into a blockchain after the transaction abstract passes the consensus verification, wherein the plurality of transaction nodes and the consensus nodes are blockchain nodes of a blockchain network.

8. The apparatus according to claim 7, wherein, when the target transaction is initiated by the first transaction node, determining the transaction abstract according to the transaction data comprises:

sending the data abstract to the one or more second transaction nodes;

acquiring the data abstract after the second transaction nodes each digitally sign the data abstract; and

determining the transaction abstract according to the acquired digitally signed data abstract.

9. The apparatus according to claim 7, wherein, when the target transaction is initiated by any of one or more second transaction nodes, determining the transaction abstract according to the transaction data comprises:

receiving the data abstract from the initiating second transaction node;

verifying the data abstract according to the transaction data;

digitally signing, if the data abstract passes the verification, the data abstract to obtain a first abstract; and

upon receiving second abstracts obtained after the second transaction nodes each digitally sign the data abstract, determining the transaction abstract according to the first abstract and the second abstracts.

10. The apparatus according to claim 7, wherein the method further comprises:

saving the transaction data into a private database corresponding to the first transaction node.

11. The apparatus according to claim 10, wherein the target transaction is initiated by the first transaction node, and the method further comprises:

sending the transaction data to the one or more second transaction nodes, causing each of the second transaction nodes to save the transaction data into a private database corresponding to the second transaction node.

12. The method of claim 1, further comprising: causing the consensus nodes to each verify the transaction abstract in the transaction request.

13. The method of claim 12, wherein:

the transaction data is not transmitted to the consensus nodes and not saved into the blockchain.

14. The method of claim 12, wherein:

the transaction data of the target transaction comprises at least one of a subject matter of a transaction associated with the target transaction, detailed information of the subject matter, an account address of a subject that participates in the target transaction, or ID information of the subject that participates in the target transaction.

15. The method of claim 12, wherein:

digitally signing the data abstract comprises digitally granting a verification of the data abstract; and

determining the transaction abstract comprises each of the first transaction node and the one or more second transaction nodes digitally signing the data abstract in a preset order.

16. The method of claim 12, further comprising:

causing the consensus nodes to each save the transaction abstract into the blockchain in response to all of the consensus nodes having verified the transaction abstract.