

CLAIMS

1. A transaction data processing method, comprising:

receiving, by a client, a transaction data processing request, the transaction data processing request carrying a transaction type and transaction data; transmitting, by the client, according to the transaction type, the transaction data to a corresponding channel, wherein the client generates a transaction identifier according to the transaction type, selects the corresponding channel according to the transaction type, and transmits the transaction identifier and transaction data after security processing to the matching channel;

transmitting, by the channel, the transaction data to a transaction node therein;

performing, the transaction node, processing on the transaction data to obtain a preliminary transaction result, and feeding back the preliminary transaction result to the channel;

performing, by the channel, according to the preliminary transaction result, calculation to obtain a target transaction result, and returning the target transaction result to the client; and

issuing, by the client, the target transaction result,

wherein the client is independent of the transaction node and provides a transaction data processing request for outside services in a load-balancing mode.

2. The method according to claim 1, further comprising: allocating, by an organization, one or more transaction nodes to users registered in the organization, each transaction node corresponding to one transaction type; and

allocating, by the organization, the transaction nodes to different channels according to the transaction types.

3. The method according to claim 1, wherein the transmitting, by the channel, the transaction data to a transaction node therein comprises:

acquiring, by the channel, an organization identifier corresponding to the transaction node in the

channel, and transmitting the transaction data and the organization identifier to the corresponding transaction node in the channel;

before the performing, by the transaction node, processing on the transaction data to obtain a preliminary transaction result, the method further comprises:

5 verifying, by the transaction node, the organization identifier, and after the verification of the organization identifier is passed, verifying, by the transaction node, user permissions corresponding to the transaction nodes; and after the verification of the user permissions is passed, continuing to execute the transaction node performing processing on the transaction data to obtain a preliminary transaction result.

10 4. The method according to claim 1, wherein the transaction nodes are a transaction node cluster, and the transaction nodes in the transaction node cluster share a storage space;

the performing, by the transaction node, processing on the transaction data to obtain a preliminary transaction result comprises:

15 detecting, by the transaction node cluster, whether a transaction node currently participating in a transaction has a fault;

if the transaction node currently participating in the transaction has a fault, selecting, by the transaction node cluster, a transaction node that has no fault; and

20 continuing to process, by the selected transaction node that has no fault, according to information stored in the shared storage space by the transaction node that has a fault, the transaction data to obtain a preliminary transaction result.

5. The method according to claim 1, wherein the performing, by the channel, according to the preliminary transaction result, calculation to obtain a target transaction result comprises:

25 determining, by the channel, whether the number of preliminary transaction results indicating a transaction success that are fed back by the transaction nodes participating in the transaction is greater than or equal to a preset value; wherein

when the number of the preliminary transaction results indicating a transaction success is greater than or equal to the preset value, a target transaction result indicates a transaction success; and

when the number of the preliminary transaction results indicating a transaction success is less than the preset value, the target transaction result indicates a transaction failure.

5 6. A blockchain transaction data processing system, comprising a client, channels, and transaction nodes;

wherein the client is configured to receive a transaction data processing request, the transaction data processing request carrying a transaction type and transaction data; the client transmits, according to the transaction type, the transaction data to a corresponding channel, wherein the client
10 generates a transaction identifier according to the transaction type, selects the corresponding channel according to the transaction type, and transmits the transaction identifier and transaction data after security processing to the matching channel;

the channel is configured to transmit the transaction data to a transaction node therein;

the transaction node is configured to perform processing on the transaction data to obtain a
15 preliminary transaction result, and feed back the preliminary transaction result to the channel;

the channel is further configured to perform, according to the preliminary transaction result, calculation to obtain a target transaction result, and return the target transaction result to the client; and

the client is further configured to issue the target transaction result,

20 wherein the client is independent of the transaction node and provides a transaction data processing request for outside services in a load-balancing mode.

7. The system according to claim 6, further comprising an organization, wherein the organization is configured to allocate one or more transaction nodes to users registered in the organization, each transaction node corresponding to one transaction type; and the organization
25 allocates the transaction nodes to different channels according to the transaction types.

8. The system according to claim 6, wherein the organization sets corresponding transaction permissions for users registered in the organization;

the channel is further configured to acquire an organization identifier corresponding to the transaction node in the channel, and transmit the transaction data and the organization identifier to the
5 corresponding transaction node in the channel; and

the transaction node is further configured to verify the organization identifier, and after the verification of the organization identifier is passed, the transaction node verifies user permissions corresponding to the transaction nodes; and after the verification of the user permissions is passed, the transaction node continues to perform processing on the transaction data to obtain a preliminary
10 transaction result.

9. The system according to claim 6, wherein the transaction nodes are a transaction node cluster, and the transaction nodes in the transaction node cluster share a storage space;

the transaction node cluster is configured to detect whether a transaction node currently participating in a transaction has a fault;

15 if the transaction node currently participating in the transaction has a fault, the transaction node cluster selects a transaction node that has no fault; and

the selected transaction node that has no fault is configured to continue to process, according to information stored in the shared storage space by the transaction node that has a fault, the transaction data to obtain a preliminary transaction result.

20 10. The system according to claim 6, wherein the channel is further configured to determine whether the number of preliminary transaction results indicating a transaction success that are fed back by the transaction nodes participating in the transaction is greater than or equal to a preset value; wherein

when the number of the preliminary transaction results indicating a transaction success is greater
25 than or equal to the preset value, a target transaction result indicates a transaction success; and

when the number of the preliminary transaction results indicating a transaction success is less than the preset value, the target transaction result indicates a transaction failure.

11. A computer system, comprising a client, channels, and transaction nodes;

wherein the client comprises a first memory and one or more first processors; the memory stores
5 a computer readable instruction therein; when the computer readable instruction is executed by the first processor, the one or more first processors execute the following steps: receiving a transaction data processing request, the transaction data processing request carrying a transaction type and transaction data; transmitting, according to the transaction type, the transaction data to a
10 corresponding channel, wherein the client generates a transaction identifier according to the transaction type, selects the corresponding channel according to the transaction type, and transmits the transaction identifier and transaction data after security processing to the matching channel; and issuing a target transaction result;

the channel comprises a second memory and one or more second processors; the memory stores
15 a computer readable instruction therein; when the computer readable instruction is executed by the second processor, the one or more second processors execute the following steps: transmitting the transaction data to a transaction node in the channel; performing, according to a preliminary transaction result; calculation to obtain a target transaction result; and returning the target transaction result to the client, wherein the client is independent of the transaction node and provides a transaction data processing request for outside services in a load-balancing mode;

20 the transaction node comprises a third memory and one or more third processors; the memory stores a computer readable instruction therein; when the computer readable instruction is executed by the third processor, the one or more third processors execute the following steps: performing processing on the transaction data to obtain a preliminary transaction result; and feeding back the preliminary transaction result to the channel.

25 12. The computer system according to claim 11, further comprising an organization, wherein the organization comprises a fourth memory and one or more fourth processors; the memory stores a

computer readable instruction therein, and when the computer readable instruction is executed by the fourth processor, the one or more fourth processors execute the following steps:

allocating one or more transaction nodes to users registered in the organization, each transaction node corresponding to one transaction type; and

5 allocating the transaction nodes to different channels according to the transaction types.

13. The computer system according to claim 11, wherein the transmitting the transaction data to a transaction node in the channel implemented when the second processor executes the computer readable instruction comprises:

acquiring an organization identifier corresponding to the transaction node in the channel, and
10 transmitting the transaction data and the organization identifier to the corresponding transaction node in the channel;

before the performing processing on the transaction data to obtain a preliminary transaction result implemented when the third processor executes the computer readable instruction, the method further comprises:

15 verifying the organization identifier, and after the verification of the organization identifier is passed, verifying user permissions corresponding to the transaction nodes; and after the verification of the user permissions is passed, continuing to execute the transaction node performing processing on the transaction data to obtain a preliminary transaction result.

14. The computer system according to claim 11, wherein the transaction nodes are a
20 transaction node cluster, and the transaction nodes in the transaction node cluster share a storage space;

the performing processing on the transaction data to obtain a preliminary transaction result implemented when the third processor executes the computer readable instruction comprises:

detecting whether a transaction node currently participating in a transaction has a fault;

if the transaction node currently participating in the transaction has a fault, selecting, by the transaction node cluster, a transaction node that has no fault; and

continuing to perform, according to information stored in the shared storage space by the transaction node that has a fault, processing on the transaction data to obtain a preliminary transaction
5 result through the selected transaction node that has no fault.

15. The computer system according to claim 10, wherein the performing, according to the preliminary transaction result, calculation to obtain a target transaction result implemented when the second processor executes the computer readable instruction comprises:

determining whether the number of preliminary transaction results indicating a transaction
10 success that are fed back by the transaction nodes participating in the transaction is greater than or equal to a preset value; wherein

when the number of the preliminary transaction results indicating a transaction success is greater than or equal to the preset value, a target transaction result indicates a transaction success; and

when the number of the preliminary transaction results indicating a transaction success is less
15 than the preset value, the target transaction result indicates a transaction failure.

16. One or more non-volatile computer readable storage media storing a computer readable instruction, wherein when the computer readable instruction is executed by one or more first processors, the one or more first processors execute the following steps: receiving a transaction data processing request, the transaction data processing request carrying a transaction type and transaction
20 data; transmitting, according to the transaction type, the transaction data to a corresponding channel, wherein the client generates a transaction identifier according to the transaction type, selects the corresponding channel according to the transaction type, and transmits the transaction identifier and transaction data after security processing to the matching channel; and issuing a target transaction result;

25 when the computer readable instruction is executed by one or more second processors, the one or

more second processors execute the following steps: transmitting the transaction data to a transaction node in the channel; performing, according to a preliminary transaction result; calculation to obtain a target transaction result; and returning the target transaction result to the client, wherein the client is independent of the transaction node and provides a transaction data processing request for outside
5 services in a load-balancing mode;

when the computer readable instruction is executed by one or more third processors, the one or more third processors execute the following steps: performing processing on the transaction data to obtain a preliminary transaction result; and feeding back the preliminary transaction result to the channel.

10 17. The storage medium according to claim 16, wherein when the computer readable instruction is executed by one or more fourth processors, the one or more fourth processors execute the following steps:

allocating one or more transaction nodes to users registered in the organization, each transaction node corresponding to one transaction type; and

15 allocating the transaction nodes to different channels according to the transaction types.

18. The storage medium according to claim 16, wherein the transmitting the transaction data to a transaction node in the channel executed by one or more second processors when the computer readable instruction is executed by the one or more second processors comprises:

20 acquiring an organization identifier corresponding to the transaction node in the channel, and transmitting the transaction data and the organization identifier to the corresponding transaction node in the channel;

before the performing processing on the transaction data to obtain a preliminary transaction result executed by one or more third processors when the computer readable instruction is executed by the one or more third processors, the method further comprises:

25 verifying the organization identifier, and after the verification of the organization identifier is

passed, verifying user permissions corresponding to the transaction nodes; and after the verification of the user permissions is passed, continuing to execute the transaction node performing processing on the transaction data to obtain a preliminary transaction result.

19. The storage medium according to claim 16, wherein the transaction nodes are a transaction
5 node cluster, and the transaction nodes in the transaction node cluster share a storage space;

the performing processing on the transaction data to obtain a preliminary transaction result executed by one or more third processors when the computer readable instruction is executed by the one or more third processors comprises:

detecting whether a transaction node currently participating in a transaction has a fault;

10 if the transaction node currently participating in the transaction has a fault, selecting, by the transaction node cluster, a transaction node that has no fault; and

continuing to perform, according to information stored in the shared storage space by the transaction node that has a fault, processing on the transaction data to obtain a preliminary transaction result through the selected transaction node that has no fault.

15 20. The storage medium according to claim 16, wherein the performing, according to the preliminary transaction result, calculation to obtain a target transaction result executed by one or more second processors when the computer readable instruction is executed by the one or more second processors comprises:

20 determining whether the number of preliminary transaction results indicating a transaction success that are fed back by the transaction nodes participating in the transaction is greater than or equal to a preset value; wherein

when the number of the preliminary transaction results indicating a transaction success is greater than or equal to the preset value, a target transaction result indicates a transaction success; and

25 when the number of the preliminary transaction results indicating a transaction success is less than the preset value, the target transaction result indicates a transaction failure.