CLAIMS

What is claimed is:

1. A resource transfer method, performed~~applied to~~ by a resource management institution, comprising the following:

obtaining transaction information of a first transaction;

performing consensus verification on the transaction information based on a predetermined consensus algorithm so that a node device having a data storage permission in a first blockchain stores the transaction information in the first blockchain when determining that the consensus verification on the transaction information succeeds;

wherein the performing consensus verification on the transaction information based on a predetermined consensus algorithm comprises the following:

signing the obtained transaction information based on a private key of the resource management institution to obtain signature data if it is determined that the transaction information satisfies a predetermined storage condition, wherein the transaction information satisfies the predetermined storage condition if it is determined that a format of the transaction information satisfies a predetermined format, the first transaction corresponding to the transaction information is of a predetermined transaction type, and the first transaction corresponding to the transaction information is a valid transaction;

sending the signature data and institution identifier information of the resource management institution to other node devices connected to the first blockchain;

receiving signature data and node identifier information sent by the other node devices;

obtaining a corresponding public key based on the node identifier information, verifying, based on the public key, the received signature data; and

determining, based on the predetermined consensus algorithm and result information of the verification, whether the consensus verification on the transaction information succeeds;

receiving first transfer indication information sent by a first service institution, wherein the first transfer indication information is sent based on a resource transfer request sent by a first user when it is determined that a predetermined resource transfer condition is satisfied; the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by the resource management institution; and the resource management institution and the first service institution are located in different borders and are both connected to a first blockchain;

generating transfer detail information of the resource to be transferred based on the transaction information of the~~a~~ first transaction of the first user stored in the first blockchain, and storing the transfer detail information in the first blockchain to supervise, based on the transfer detail information, the transfer of the resource to be transferred~~, wherein the transaction information is stored in the first blockchain after consensus verification participated by the resource management institution and the first service institution succeeds~~; and

performing resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account.

2. The method according to claim 1, wherein the generating transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain comprises the following:

calling a first smart contract in the first blockchain, and generating the transfer detail information of the resource to be transferred based on the first smart contract and the transaction information of the first transaction of the first user stored in the first blockchain.

3. The method according to claim 1, wherein the resource to be transferred is a first type of resource; the first transfer indication information comprises a first quantity of the resources to be transferred; the transaction information comprises a second quantity of the first type of resources transferred in by the first user in the first transaction;

the generating transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain comprises the following:

matching the second quantity with the first quantity to obtain a target second quantity;

determining transaction information corresponding to the target second quantity as target transaction information; and

generating the transfer detail information of the resource to be transferred based on the target transaction information.

4. The method according to claim 1, wherein the resource to be transferred is a first type of resource; the first transfer indication information comprises a first quantity of the resources to be transferred and transaction identifier information of the first transaction corresponding to the resource to be transferred; the transaction information comprises a second quantity of the first type of resources transferred in by the first user in the first transaction;

the generating transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain comprises the following:

obtaining, based on the transaction identifier information, associated target transaction information from the transaction information stored in the first blockchain; and

generating the transfer detail information of the resource to be transferred based on the target transaction information if it is determined that the total quantity of the second quantities comprised in the target transaction information is not less than the first quantity.

5. The method according to claim 1, wherein the resource to be transferred is a first type of resource, and the performing resource transfer based on the first transfer indication information comprises the following:

transforming, based on a predetermined transformation rule, the resource to be transferred into a second type of resource to be transferred corresponding to the border where the resource management institution is located;

transferring the second type of resource to be transferred to a specified intermediate account based on the first transfer indication information; and

transferring the second type of resource to be transferred from the intermediate account to the target account.

6. The method according to claim 5, wherein the transferring the second type of resource to be transferred to a specified intermediate account comprises the following:

transferring the second type of resource to be transferred to a first account of a second service institution located in the same border as the resource management

institution, and sending second transfer indication information to the second service institution so that the second service institution transfers the second type of resource to be transferred from the first account to the target account based on the second transfer indication information; or

transferring the second type of resource to be transferred to a second account of the resource management institution, and transferring the second type of resource to be transferred from the second account to the target account.

7. The method according to claim 1, wherein the first transfer indication information comprises a first quantity of the resources to be transferred and user identifier information of the first user;

after the storing the transfer detail information in the blockchain, the method further comprises the following:

obtaining a third quantity of associated transferrable resources from the first blockchain based on the user identifier information;

determining the quantity of current transferrable resources of the first user based on the first quantity and the third quantity, and taking the quantity as an updated third quantity; and

storing the updated third quantity in the first blockchain in association with the user identifier information.

~~8. The method according to claim 1, further comprising the following:~~

~~obtaining the transaction information of the first transaction, and performing consensus verification on the transaction information based on a predetermined consensus algorithm so that a node device having a data storage permission in the first blockchain stores the transaction information in the first blockchain when determining that the consensus verification on the transaction information succeeds.~~

~~9. The method according to claim 8, wherein the performing consensus verification on the transaction information based on a predetermined consensus algorithm comprises the following:~~

~~signing the obtained transaction information based on a private key of the resource management institution to obtain signature data if it is determined that the transaction information satisfies a predetermined storage condition;~~

~~sending the signature data and institution identifier information of the resource management institution to other node devices connected to the first blockchain; and~~

~~receiving signature data and node identifier information sent by the other node devices;~~

~~obtaining a corresponding public key based on the node identifier information, verifying, based on the public key, the received signature data, and determining, based on the consensus algorithm and result information of the verification, whether the consensus verification on the transaction information succeeds.~~

~~10. The method according to claim 9, wherein the determining that the transaction information satisfies a predetermined storage condition comprises the following:~~

~~determining that the transaction information satisfies the predetermined storage condition if it is determined that a format of the transaction information satisfies a predetermined format, the first transaction corresponding to the transaction information is of a predetermined transaction type, and the first transaction corresponding to the transaction information is a valid transaction.~~

~~11. A resource transfer method, applied to a first service institution, comprising the following:~~

~~receiving a resource transfer request sent by a first user, wherein the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; the first service institution and the resource management institution are located in different borders and are both connected to a first blockchain; and the resource transfer request comprises resource transfer information;~~

~~determining whether the resource transfer information satisfies a predetermined resource transfer condition; and~~

~~if yes, sending first transfer indication information to the resource management institution based on the resource transfer information, so the resource management institution stores generated transfer detail information of the resource to be transferred in the first blockchain and performs resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account, wherein the transfer detail information is generated based on transaction information of a first transaction of the first user stored in the first blockchain, and the transaction information is stored in the first blockchain after consensus verification participated by the first service institution and the resource management institution succeeds.~~

12. The method according to claim 11, wherein the resource transfer information comprises user identifier information of the first user and a first quantity of the resources to be transferred;

the determining whether the resource transfer information satisfies a predetermined resource transfer condition comprises the following:

obtaining a third quantity of associated transferrable resources from the first blockchain based on the user identifier information; and

determining that the resource transfer information satisfies the predetermined resource transfer condition if it is determined that the first quantity is not greater than the third quantity.

13. The method according to claim 12, wherein the determining that the resource transfer information satisfies the predetermined resource transfer condition further comprises the following:

locking the third quantity so that the resource management institution updates the locked third quantity after performing, based on the first transfer indication information, the resource transfer.

14. The method according to claim 11, further comprising the following:

obtaining the transaction information of the first transaction of the first user; and

broadcasting the transaction information in the first blockchain so that each node device connected to the first blockchain performs consensus verification on the transaction information based on a predetermined consensus algorithm when obtaining the transaction information, and a node device having a data storage permission stores the transaction information in the blockchain when determining that the consensus verification on the transaction information succeeds.

15. A resource transfer apparatus, applied to a resource management institution, comprising the following:

a receiving module, configured to receive first transfer indication information sent by a first service institution, wherein the first transfer indication information is sent based on a resource transfer request sent by a first user when it is determined that a predetermined resource transfer condition is satisfied; the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by the resource management institution; and the resource management institution and the first service institution are located in different borders and are both connected to a first blockchain;

a generation module, configured to generate transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain, and store the transfer detail information in the first blockchain to supervise, based on the transfer detail information, the transfer of the resource to be transferred, wherein the transaction information is stored in the first blockchain after consensus verification participated by the resource management institution and the first service institution succeeds; and

a transfer module, configured to perform resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account.

16. The apparatus according to claim 15, wherein

the generation module is configured to invoke a first smart contract in the first blockchain, and generate the transfer detail information of the resource to be transferred based on the first smart contract and the transaction information of the first transaction of the first user stored in the first blockchain.

17. The apparatus according to claim 15, further comprising a consensus module, wherein

the consensus module is configured to obtain the transaction information of the first transaction, and perform consensus verification on the transaction information based on a predetermined consensus algorithm so that a node device having a data storage permission in the first blockchain stores the transaction information in the first blockchain when determining that the consensus verification on the transaction information succeeds.

18. A resource transfer apparatus, applied to a first service institution, comprising the following:

a receiving module, configured to receive a resource transfer request sent by a first user, wherein the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; the first service institution and the resource management institution are located in different borders and are both connected to a first blockchain; and the resource transfer request comprises resource transfer information;

a determination module, configured to determine whether the resource transfer information satisfies a predetermined resource transfer condition; and

a sending module, configured to send first transfer indication information to the resource management institution based on the resource transfer information if a determination result of the determination module is yes, so the resource management institution stores generated transfer detail information of the resource to be transferred in the first blockchain and performs resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account, wherein the transfer detail information is generated based on transaction information of a first transaction of the first user stored in the first blockchain, and the transaction information is stored in the first blockchain after consensus verification participated by the first service institution and the resource management institution succeeds.

19. A resource transfer system, comprising a first service institution, a resource management institution, and a blockchain system, wherein the first service institution and the resource management institution are located in different borders and are both connected to the blockchain system;

the first service institution is configured to receive a resource transfer request sent by a first user, and send first transfer indication information to the resource management institution based on the resource transfer information if it is determined that the resource transfer information comprised in the resource transfer request satisfies a predetermined resource transfer condition, wherein the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by the resource management institution;

the resource management institution is configured to receive the first transfer indication information sent by the first service institution, generate transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the blockchain system, store the transfer detail information in the blockchain system, and perform resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account, wherein the transaction information is stored in the blockchain system after consensus verification participated by the resource management institution and the first service institution succeeds; and

the blockchain system is configured to store the transaction information of the first transaction and the transfer detail information.

~~20. The system according to claim 19, further comprising a second service institution located in the same border as the resource management institution, wherein~~

~~the resource management institution is configured to transfer the resource to be transferred to a first account of the second service institution based on the first transfer indication information, and send second transfer indication information to the second service institution; and~~

~~the second service institution is connected to the blockchain system and is configured to transfer the resource to be transferred from the first account to the target account based on the second transfer indication information.~~

~~21. The system according to claim 19, further comprising a third-party authority institution located in the same border as the resource management institution, wherein~~

~~the third-party authority institution is connected to the blockchain system and is configured to determine, based on the transfer detail information in the blockchain system, whether the resource transfer is valid.~~

8~~22~~. A resource transfer device, comprising the following:

a processor; and

a memory configured to store computer-executable instructions that, when executed, enable the processor to perform the method of any one of claims 1 to 7.~~:~~

~~receive first transfer indication information sent by a first service institution, wherein the first transfer indication information is sent based on a resource transfer request sent by a first user when it is determined that a predetermined resource transfer condition is satisfied; the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; and the resource management institution and the first service institution are located in different borders and are both connected to a first blockchain;~~

~~generate transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain, and store the transfer detail information in the first blockchain to supervise, based on the transfer detail information, the transfer of the resource to be transferred, wherein the transaction information is stored in the first blockchain after consensus verification participated by the resource management institution and the first service institution succeeds; and~~

~~perform resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account.~~

~~23. A resource transfer device, comprising the following:~~

~~a processor; and~~

~~a memory configured to store computer executable instructions that, when executed, enable the processor to:~~

~~receive a resource transfer request sent by a first user, wherein the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; the first service institution and the resource management institution are located in different borders and are both connected to a first blockchain; and the resource transfer request comprises resource transfer information;~~

~~determine whether the resource transfer information satisfies a predetermined resource transfer condition; and~~

~~if yes, send first transfer indication information to the resource management institution based on the resource transfer information, so the resource management institution stores generated transfer detail information of the resource to be transferred in the first blockchain and performs resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account, wherein the transfer detail information is generated based on transaction information of a first transaction of the first user stored in the first blockchain, and the transaction information is stored in the first blockchain after consensus verification participated by the first service institution and the resource management institution succeeds.~~

~~24. A storage medium, configured to store computer executable instructions that, when executed by a processor, implement the following processes:~~

~~receiving first transfer indication information sent by a first service institution, wherein the first transfer indication information is sent based on a resource transfer request sent by a first user when it is determined that a predetermined resource transfer condition is satisfied; the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; and the resource management institution and the first service institution are located in different borders and are both connected to a first blockchain;~~

~~generating transfer detail information of the resource to be transferred based on transaction information of a first transaction of the first user stored in the first blockchain, and storing the transfer detail information in the first blockchain to~~

supervise, based on the transfer detail information, the transfer of the resource to be transferred, wherein the transaction information is stored in the first blockchain after consensus verification participated by the resource management institution and the first service institution succeeds; and

performing resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account.

25. A storage medium, configured to store computer executable instructions that, when executed by a processor, implement the following processes:

receiving a resource transfer request sent by a first user, wherein the resource transfer request is used to request the transfer of a resource to be transferred to a target account controlled by a resource management institution; the first service institution and the resource management institution are located in different borders and are both connected to a first blockchain; and the resource transfer request comprises resource transfer information;

determining whether the resource transfer information satisfies a predetermined resource transfer condition; and

if yes, sending first transfer indication information to the resource management institution based on the resource transfer information, so the resource management institution stores generated transfer detail information of the resource to be transferred in the first blockchain and performs resource transfer based on the first transfer indication information, so as to transfer the resource to be transferred to the target account, wherein the transfer detail information is generated based on transaction information of a first transaction of the first user stored in the first blockchain, and the transaction information is stored in the first blockchain after consensus verification participated by the first service institution and the resource management institution succeeds.