CLAIMS

What is claimed is:

1. A computer-implemented method for blockchain-based virtual resource delivery, the method comprising:

receiving, by one or more blockchain nodes in a blockchain network and from a delivery node in the blockchain network, a target transaction for pre-funding future crowdfunding projects related to a given category, the target transaction being constructed based on a category identifier for the given category and a resource amount specified by a delivery user, wherein the category identifier is assigned to one of a plurality of crowdfunding project categories and the resource amount is an amount for pre-funding the future crowdfunding projects;

performing, by the one or more blockchain nodes, consensus verification on the target transaction;

in response to determining that consensus verification is passed:

establishing, by the one or more blockchain nodes, a first correspondence between the category identifier and virtual resources corresponding to the resource amount; and

storing, by the one or more blockchain nodes, the first correspondence in a shared ledger of the blockchain network; and

after receiving the target transaction, receiving, by the one or more blockchain nodes from a crowdfunding node, project information of a new crowdfunding project initiated by a crowdfunding user, the project information comprising, for the new crowdfunding project, the category identifier and a consumption amount for the new crowdfunding project;

in response to receiving the project information, identifying a set of virtual resources for which the ledger includes a correspondence between the category identifier and the set of virtual resources, wherein the set of virtual resources includes the virtual resources corresponding to the resource amount; and

establishing, by the one or more blockchain nodes, a second correspondence between the category identifier and the set of virtual resources for which the ledger includes the correspondence between the category identifier and the set of virtual resources, thereby enabling the crowdfunding node to convert the virtual resources

into assets for funding the new crowdfunding project.

2. The computer-implemented method of claim 1, wherein:

the target transaction is further constructed based on a node identifier of the delivery node; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier and virtual resources corresponding to the resource amount comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, and node identifiers including the node identifier.

3. The computer-implemented method of claim 2, wherein the one or more blockchain nodes include:

a group of blockchain nodes for which each blockchain node in the groups satisfies a specified condition, wherein the specified condition is (i) that a node identifier of the blockchain node has a respective correspondence with the category identifier stored in the ledger based on the blockchain node having delivered virtual resources for the new crowdfunding project category identified by the category identifier or (ii) that each blockchain node in the group is pre-specified.

4. The computer-implemented method of claim 2, wherein:

the target transaction is further constructed based on an additional condition specified by the delivery user; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, and node identifiers comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, the node identifiers, and the additional condition.

5. The computer-implemented method of claim 1, wherein a virtual resource account for storing virtual resources is created for each node in the blockchain network in advance, and each virtual resource account is managed by a designated device, the method further comprising deducting, by the designated device, the virtual

resources of the resource amount from the virtual resource account of the delivery node.

6. The computer-implemented method of claim 1, wherein before establishing, by the one or more blockchain nodes, the second correspondence, the method further comprises:

confirming, by the one or more blockchain nodes, the project information.

7. The computer-implemented method of claim 6, wherein confirming, by the one or more blockchain nodes, the project information comprises:

for each blockchain node of a plurality of blockchain nodes including the one or more blockchain nodes:

determining, whether the first correspondence between the category identifier and virtual resources corresponding to the resource amount includes an additional condition;

when the first correspondence includes an additional condition, reviewing, by the blockchain node, the project information based on the additional condition;

when the project information satisfies the additional condition, determining, by the blockchain node, that the project information passes the review;

when the project information does not satisfy the additional condition, determining, by the blockchain node, that the project information fails the review or

when the first correspondence does not include the additional condition, determining, by the blockchain node, that the project information passes the review; and

when the plurality of blockchain nodes reach a consensus that the project information passes the review, confirming, by the plurality of blockchain nodes, the project information.

8. The computer-implemented method of claim 7, wherein:

the new crowdfunding project corresponds to more than one project category;

for each project category, among a plurality of blockchain nodes including the one or more blockchain nodes, the blockchain nodes whose node identifiers

correspond to a category identifier of the project category are included in a node set corresponding to the project category; and

confirming the project information comprises:

determining, by each node set, whether to confirm the project information; and

if all node sets reach a consensus on confirming the project information, confirming, by the plurality of blockchain nodes, the project information.

9. The computer-implemented method of claim 8, wherein, for each project category, determining, by the node set corresponding to the project category, whether to confirm the project information comprises:

for each of the plurality of blockchain nodes, when a second additional condition exists, reviewing, by the blockchain node, the project information based on the second additional condition;

when the project information satisfies the second additional condition, determining, by the node, that the project information passes the review; or

when the project information does not satisfy the second additional condition, determining, by the node, that the project information fails the review, wherein the second additional condition is an additional condition that corresponds to anode identifier of the blockchain node and the category identifier of the project category; or

when the second additional condition does not exist, determining, by blockchain node, that the project information passes the review; and

when the blockchain nodes in the node set reach a consensus that the project information passes the review, confirming, by the node set, the project information.

10. A non-transitory, computer-readable medium storing one or more instructions executable by a computer system to perform operations comprising:

receiving, by one or more blockchain nodes in a blockchain network and from a delivery node in the blockchain network, a target transaction for pre-funding future crowdfunding projects related to a given category, the target transaction being constructed based on a category identifier for the given category and a resource amount specified by a delivery user, wherein the category identifier is assigned to one of a plurality of crowdfunding project categories and the resource amount is an

amount for pre-funding the future crowdfunding projects;

performing, by the one or more blockchain nodes, consensus verification on the target transaction;

in response to determining that consensus verification is passed:

establishing, by the one or more blockchain nodes, a first correspondence between the category identifier and virtual resources corresponding to the resource amount; and

storing, by the one or more blockchain nodes, the first correspondence in a shared ledger of the blockchain network; and

after receiving the target transaction, receiving, by the one or more blockchain nodes from a crowdfunding node, project information of a new crowdfunding project initiated by a crowdfunding user, the project information comprising, for the new crowdfunding project, the category identifier and a consumption amount for the new crowdfunding project;

in response to receiving the project information, identifying a set of virtual resources for which the ledger includes a correspondence between the category identifier and the set of virtual resources, wherein the set of virtual resources includes the virtual resources corresponding to the resource amount; and

establishing, by the one or more blockchain nodes, a second correspondence between the category identifier and the set of virtual resources for which the ledger includes the correspondence between the category identifier and the set of virtual resources, thereby enabling the crowdfunding node to convert the virtual resources into assets for funding the new crowdfunding project.

11. The non-transitory, computer-readable medium of claim 10, wherein:

the target transaction is further constructed based on a node identifier of the delivery node; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier and virtual resources corresponding to the resource amount comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, and node identifiers including the node identifier.

12. The non-transitory, computer-readable medium of claim 11, wherein the one

or more blockchain nodes include:

a group of blockchain nodes for which each blockchain node in the groups satisfies a specified condition, wherein the specified condition is (i) that a node identifier of the blockchain node has a respective correspondence with the category identifier stored in the ledger based on the blockchain node having delivered virtual resources for the crowdfunding project category identified by the category identifier or (ii) that each blockchain node in the group is pre-specified.

13. The non-transitory, computer-readable medium of claim 11, wherein:

the target transaction is further constructed based on an additional condition specified by the delivery user; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, and node identifiers comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, the node identifiers, and the additional condition.

14. The non-transitory, computer-readable medium of claim 10, wherein a virtual resource account for storing virtual resources is created for each node in the blockchain network in advance, and each virtual resource account is managed by a designated device, the operations further comprising deducting, by the designated device, the virtual resources of the resource amount from the virtual resource account of the delivery node.

15. A computer-implemented system, comprising:

one or more computers; and

one or more computer memory devices interoperably coupled with the one or more computers and having tangible, non-transitory, machine-readable media storing one or more instructions that, when executed by the one or more computers, perform one or more operations comprising:

receiving, by one or more blockchain nodes in a blockchain network and from a delivery node in the blockchain network, a target transaction for pre-funding future crowdfunding projects related to a given category, the target

transaction being constructed based on a category identifier for the given category and a resource amount specified by a delivery user, wherein the category identifier is assigned to one of a plurality of crowdfunding project categories and the resource amount is an amount for pre-funding the future crowdfunding projects;

performing, by the one or more blockchain nodes, consensus verification on the target transaction;

in response to determining that consensus verification is passed:

establishing, by the one or more blockchain nodes, a first correspondence between the category identifier and virtual resources corresponding to the resource amount; and

storing, by the one or more blockchain nodes, the first correspondence in a shared ledger of the blockchain network; and

after receiving the target transaction, receiving, by the one or more blockchain nodes from a crowdfunding node, project information of a new crowdfunding project initiated by a crowdfunding user, the project information comprising, for the new crowdfunding project, the category identifier and a consumption amount for the new crowdfunding project;

in response to receiving the project information, identifying a set of virtual resources for which the ledger includes a correspondence between the category identifier and the set of virtual resources, wherein the set of virtual resources includes the virtual resources corresponding to the resource amount; and

establishing, by the one or more blockchain nodes, a second correspondence between the category identifier and the set of virtual resources for which the ledger includes the correspondence between the category identifier and the set of virtual resources, thereby enabling the crowdfunding node to convert the virtual resources into assets for funding the new crowdfunding project.

16. The computer-implemented system of claim 15, wherein:

the target transaction is further constructed based on a node identifier of the delivery node; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier and virtual resources corresponding to the resource amount comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to

the resource amount, and node identifiers including the node identifier.

17. The computer-implemented system of claim 16, wherein the one or more blockchain nodes include:

a group of blockchain nodes for which each blockchain node in the groups satisfies a specified condition, wherein the specified condition is (i) that a node identifier of the blockchain node has a respective correspondence with the category identifier stored in the ledger based on the blockchain node having delivered virtual resources for the crowdfunding project category identified by the category identifier or (ii) that each blockchain node in the group is pre-specified.

18. The computer-implemented system of claim 16, wherein:

the target transaction is further constructed based on an additional condition specified by the delivery user; and

establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, and node identifiers comprises establishing, by the one or more blockchain nodes, the first correspondence between the category identifier, the virtual resources corresponding to the resource amount, the node identifiers, and the additional condition.

19. The computer-implemented system of claim 15, wherein a virtual resource account for storing virtual resources is created for each node in the blockchain network in advance, and each virtual resource account is managed by a designated device, the operations further comprising deducting, by the designated device, the virtual resources of the resource amount from the virtual resource account of the delivery node.

20. The computer-implemented system of claim 15, wherein before establishing, by the one or more blockchain nodes, the second correspondence, the operations further comprises:

confirming, by the one or more blockchain nodes, the project information.