

CLAIMS

1. A service execution method, comprising:
 - continuously generating, by a node, blocks of a first type and storing the blocks of the first type on a blockchain;
 - providing the blockchain for an end-user device that obtains a block generation rule;
 - obtaining, by the end-user device, the block generation rule from a service platform;
 - generating, based on the blockchain, a preprocessing block that matches the block generation rule;
 - performing, by the end-user device, a consensus procedure on the preprocessing block by using one or more other end-user devices and the node;
 - storing the preprocessing block on the blockchain as a first block of a second type in response to determining that a consensus on the preprocessing block is achieved;
 - obtaining, by the service platform, at least a part of the blockchain at a current moment from at least one end-user device or at least one node in response to determining that a predetermined condition is met;
 - determining, by the service platform, a particular block of the first type from the at least a part of the blockchain at the current moment based on a predetermined moment;
 - selecting a second block of the second type based on the particular block; and
 - executing, by the service platform, a service based on a user identifier comprised in the second block.
2. A service execution method, wherein a node continuously generates blocks of a first type, stores the blocks of the first type on a blockchain, and provides the blockchain for an end-user device that obtains a block generation rule, and wherein the method comprises:
 - receiving, by a service platform, a qualification acquisition request sent by the end-

user device;

returning the block generation rule to the end-user device based on the qualification acquisition request, so that the end-user device generates a first block of a second type based on the blockchain and the block generation rule;

stores the first block of the second type on the blockchain;

obtaining at least a part of the blockchain at a current moment from at least one end-user device or at least one node in response to determining that a predetermined condition is met;

determining a particular block of the first type from the at least a part of the blockchain at the current moment based on a predetermined moment;

selecting a second block of the second type based on the particular block; and

executing a service based on a user identifier comprised in the second block.

3. The service execution method according to claim 2, wherein determining the particular block of the first type and selecting the second block of the second type comprises:

determining generation times of all the blocks of the first type on the blockchain;

determining the particular block whose generation time is closest to the predetermined moment;

determining the particular block as a marked block; and

selecting the second block of the second type that is located after the marked block from the at least a part of the blockchain at the current moment.

4. The service execution method according to claim 3, wherein selecting the second block of the second type that is located after the marked block from the at least a part of the blockchain at the current moment comprises:

selecting a predetermined number of blocks of the second type that are located after the marked block from the at least a part of the blockchain at the current moment in a ranking

sequence of blocks on the at least a part of the blockchain at the current moment.

5. A service execution method, wherein a node continuously generates blocks of a first type, stores the blocks of the first type on a blockchain, and provides the blockchain for an end-user device that obtains a block generation rule, and wherein the method comprises:

sending, by the end-user device, a qualification acquisition request to a service platform, so that the service platform returns the block generation rule to the end-user device;

generating a preprocessing block based on the blockchain and the block generation rule;

performing a consensus procedure on the preprocessing block by using one or more other end-user devices and the node;

storing the preprocessing block on which a consensus is achieved on the blockchain as a first block of a second type; and

in response to receiving qualification confirmation information sent by the service platform, sending at least a part of the blockchain at a current moment that is stored by the end-user device to the service platform, so that the service platform executes a service based on a particular block of the first type and a second block of the second type on the blockchain at the current moment.

6. The service execution method according to claim 5, wherein generating the preprocessing block based on the blockchain and the block generation rule comprises:

determining a block feature value of the last block on the blockchain;

determining an adjustment parameter, so that a to-be-verified feature value generated by using the adjustment parameter, the block feature value, and a user identifier satisfies the block generation rule; and

generating the preprocessing block based on the to-be-verified feature value, the block feature value, the adjustment parameter, and the user identifier.

7. A service execution device, wherein a node continuously generates blocks of a first type, stores the blocks of the first type on a blockchain, and provides the blockchain for an end-user device that obtains a block generation rule, and wherein the service execution device comprises:

a receiving module, configured to receive a qualification acquisition request sent by the end-user device;

a returning module, configured to return the block generation rule to the end-user device based on the qualification acquisition request, so that the end-user device generates a first block of a second type based on the blockchain and the block generation rule, and stores the first block on the blockchain;

an acquisition module, configured to obtain at least a part of the blockchain at a current moment from at least one end-user device or at least one node in response to determining that a predetermined condition is met;

a selection module, configured to determine a particular block of the first type from the at least a part of the blockchain at the current moment based on a predetermined moment, and select a second block of the second type based on the particular block; and

an execution module, configured to execute a service based on a user identifier comprised in the second block.

8. The service execution device according to claim 7, wherein the selection module is configured to:

determine generation times of all the blocks of the first type on the blockchain;

determine the particular block whose generation time is closest to the predetermined moment;

determine the particular block as a marked block; and

select the second block of the second type that is located after the marked block from

the at least a part of the blockchain at the current moment.

9. The service execution device according to claim 8, wherein the selection module is configured to select a predetermined number of blocks of the second type that are located after the marked block from the at least a part of the blockchain at the current moment in a ranking sequence of blocks on the at least a part of the blockchain at the current moment.

10. The service execution method according to claim 1, wherein the first block and the second block are the same or the first block and the second block are different.

11. The service execution method according to claim 2, wherein the first block and the second block are the same or the first block and the second block are different.

12. The service execution method according to claim 5, wherein the first block and the second block are the same or the first block and the second block are different.

13. The service execution device according to claim 7, wherein the first block and the second block are the same or the first block and the second block are different.