CLAIMS

What is claimed is:

1. A payment assistance method performed by a mobile device, comprising:

obtaining (S202) a merchant account identifier sent by a merchant device through short-range wireless communication;

generating (S204) verification information to provide pre-generated verification information, and sending the pre-generated verification information and the merchant account identifier to a server;

determining (S208) that a merchant account corresponding to the merchant account identifier is a payment receiving object so as to perform a payment, comprising receiving (S206) a verification information received from the merchant device through short-range wireless communication and successfully verifying that the verification information received from the merchant device is consistent with the pre-generated verification information, wherein the verification information received from the merchant device corresponds to the pre-generated verification information that the server delivered to the merchant device upon successful verification of the merchant account identifier; and

determining the merchant account corresponding to the merchant account identifier to perform the payment.

2. The method according to claim 1, wherein the merchant account identifier obtained from the merchant device and the verification information received from the merchant device are received through Bluetooth Low Energy, BLE, broadcasts.

3. The method according to claim 1, wherein the verification information is a sequence number for verification, and the generating verification information comprises:

generating the sequence number for verification based on a user account of the user end.

4. The method according to claim 1, wherein the merchant account identifier sent by the merchant end and the pre-generated verification information each have a

timeout timestamp for time validity verification.

5. The method according to claim 4, wherein determining that a merchant account corresponding to the merchant account identifier is a payment receiving object so as to perform a payment comprises:

successfully verifying that the verification information received from the merchant device is consistent with the pre-generated verification information and determining, based on a timeout timestamp, that the verification information received from the merchant device has not expired.

6. A payment assistance method, comprising:

sending (S302), by a merchant device, a merchant account identifier through short-range wireless communication to a mobile device for a payment process;

receiving (S304), by a merchant device, verification information from a server upon successful verification of the merchant account identifier by the server, wherein the verification information is pre-generated verification information generated by the mobile device; and

sending (S306), by a merchant device, the verification information through short-range wireless communication to the mobile device for the mobile device to determine that a merchant account corresponding to the merchant account identifier is a payment receiving object using the verification information received from the merchant device.

7. The method according to claim 6, wherein performing sending through short-range wireless communication comprises:

performing sending through a Bluetooth Low Energy, BLE, broadcast.

8. The method according to claim 6, wherein before the sending a merchant account identifier through short-range wireless communication, the method further comprises:

receiving the merchant account identifier allocated by the server to the merchant end,

wherein the merchant account identifier sent by the merchant end and the pre-generated verification information each have a timeout timestamp for time validity verification, and a timeout timestamp of the merchant account identifier sent by the merchant end is pre-generated by the server.

9. A payment assistance method, comprising:

allocating (S402), by a server, a merchant account identifier to a merchant device, so that the merchant device can send the merchant account identifier through short-range wireless communication for a payment process;

receiving (S404), by the server, verification information and the merchant account identifier from a mobile device, the merchant account identifier obtained by the mobile device from the merchant device, wherein the verification information is pre-generated verification information generated by the mobile device; and

after verification on the received merchant account identifier succeeds, correspondingly delivering (S406), by the server, the verification information to the merchant device, the verification information to be sent by the merchant device to the mobile device through short-range wireless communication for the mobile device to determine that a merchant account corresponding to the merchant account identifier is a payment receiving object using the verification information received from the merchant end.

10. The method according to claim 9, wherein a short-range wireless communication comprises a Bluetooth Low Energy (BLE) broadcast.

11. The method according to claim 9, wherein the merchant account identifier allocated by the server and the pre-generated verification information each have a timeout timestamp for time validity verification.

12. The method according to claim 9, wherein that the verification on the received merchant account identifier succeeds comprises:

determining that validity verification on the received merchant account identifier succeeds, and determining, based on a timeout timestamp, that the received merchant

account identifier has not expired.

13. A mobile device comprising:

at least one processor; and

at least one memory coupled with the at least one processor, wherein

the memory stores an instruction that can be executed by the at least one processor, and the instruction is executed by the at least one processor to enable the at least one processor to perform a method according to any one of the claims 1 to 5.

14. A merchant device comprising:

at least one processor; and

at least one memory coupled with the at least one processor, wherein

the memory stores an instruction that can be executed by the at least one processor, and the instruction is executed by the at least one processor to enable the at least one processor to perform the steps performed by the merchant device in a method according to any one of the claims 6 to 8.

15. A server comprising:

at least one processor; and

at least one memory coupled with the at least one processor, wherein

the memory stores an instruction that can be executed by the at least one processor, and the instruction is executed by the at least one processor to enable the at least one processor to perform the steps performed by the server in a method according to any one of the claims 9 to 12.