CLAIMS

What is claimed is:

1. A payment collection device, wherein a target server stores an association relationship between a device identifier of the payment collection device and a payment collection account of a merchant, the payment collection account being managed by the target server;

the payment collection device comprising: a code scanner, a processor, and a communication module; wherein:

the code scanner is configured to scan a payment code provided by a purchasing user to obtain payment account information comprised in the payment code and send the payment account information to the processor, a payment account corresponding to the payment account information being managed by the target server;

the processor is configured to determine a payment amount due, construct a payment request comprising the payment amount due, the payment account information, and the device identifier, and send the payment request to the communication module; and

the communication module is configured to send the payment request to the target server for the target server to, according to the payment request, deduct, from the payment account corresponding to the payment account information, the payment amount due, and add, to the payment collection account associated with the device identifier, the payment amount due.

2. The device according to claim 1, wherein the code scanner is configured to scan a configuration code that is provided by the merchant and that comprises payment collection account information corresponding to the payment collection account of the merchant before scanning the payment code, to obtain the payment collection account information, and send the payment collection account information to the processor;

the processor is configured to construct a device binding request comprising the payment collection account information and the device identifier, before constructing the payment request, and send a registration request to the communication module; and

the communication module is configured to send the device binding request to the target server before sending the payment request, for the target server to establish an association relationship between the device identifier and the payment collection account information and store the association relationship.

3. The device according to claim 2, wherein the communication module comprises: a

wireless fidelity Wi-Fi module;

the configuration code further comprises: Wi-Fi hotspot information;

the code scanner is configured to obtain the Wi-Fi hotspot information in advance, and send the Wi-Fi hotspot information to the Wi-Fi module;

the Wi-Fi module is configured to connect to a Wi-Fi hotspot corresponding to the Wi-Fi hotspot information in advance according to the Wi-Fi hotspot information, for communication with the target server through the Wi-Fi hotspot.

4. The device according to claim 1, wherein the payment collection device further comprises: an information input module configured to receive the payment amount due input by the merchant, and to send the payment amount due to the processor.

5. The device according to claim 1, wherein:

the code scanner is configured to scan a merchandise code that comprises merchandise information and that corresponds to a to-be-paid merchandise, to obtain the merchandise information and to send the merchandise information to the processor;

the processor is configured to construct a merchandise price query request comprising the merchandise information and to send the merchandise price query request to the communication module; and

the communication module is configured to send the merchandise price query request to the target server, for the target server to return a merchandise price corresponding to the merchandise information, and send the merchandise price to the processor as the payment amount due.

6. The device according to claim 1, wherein:

the code scanner is configured to scan a payment record identification code provided by the purchasing user, to obtain a payment record identifier comprised in the payment record identification code, and send the payment record identifier to the processor;

the payment record identification code is generated by the target server and issued to the purchasing user according to a payment record after the target server generates the payment record according to the payment request;

the processor is configured to construct a refund request comprising the payment record identifier, and send the refund request to the communication module; and

the communication module is configured to send the refund request to the target server,

for the target server to determine, according to the refund request, the payment collection account, the payment account, and the payment amount due in the payment record corresponding to the payment record identifier, deduct the payment amount due from the payment collection account, and add the payment amount due to the payment account.

7. The device according to claim 1, wherein:

the code scanner is configured to scan a payment record identification code provided by the purchasing user, to obtain a payment record identifier comprised in the payment record identification code, and send the payment record identifier to the processor;

the payment record identification code is generated by the target server and issued to the purchasing user according to a payment record after the target server generates the payment record according to the payment request;

the processor is configured to construct a payment record query request comprising the payment record identifier, and send the payment record query request to the communication module; and

the communication module is configured to send the payment record query request to the target server, for the target server to return the payment record corresponding to the payment record identifier according to the payment record query request.

8. The device according to claim 1, wherein the payment collection device further comprises: a security element SE configured to encrypt and/or sign information sent to the target server.

9. The device according to claim 1, wherein:

the payment collection device further comprises: an audio output module;

the processor is configured to determine an audio message according to a preset service rule, and send the audio message to the audio output module; and

the audio output module is configured to play the audio message.

10. A payment collection method applied to the payment collection device according to any of claims 1 to 9, wherein the target server stores the association relationship between the device identifier of the payment collection device and the payment collection account of the merchant, the payment collection account being managed by the target server, the method comprising:

acquiring, by the payment collection device, the payment amount due;

scanning, by the payment collection device, the payment code provided by the purchasing user, to obtain payment account information comprised in the payment code, the payment account corresponding to the payment account information being managed by the target server;

constructing, by the payment collection device, the payment collection request comprising the payment amount due, the payment account information, and the device identifier;

sending, by the payment collection device, the payment collection request to the target server; and

according to the payment collection request, deducting, by the target server, from the payment account corresponding to the payment account information, the payment amount due, and adding, to the payment collection account associated with the device identifier, the payment amount due.

11. The method according to claim 10, wherein the target server storing the association relationship between the device identifier of the payment collection device and the payment collection account of the merchant comprises:

scanning, by the payment collection device, a configuration code that is provided by the merchant and that comprises payment collection account information corresponding to the payment collection account of the merchant, to obtain the payment collection account information;

constructing, by the payment collection device, a device binding request comprising the payment collection account information and the device identifier;

sending, by the payment collection device, the device binding request to the target server; and

establishing, by the target server, an association relationship between the payment collection account information and the device identifier and storing the association relationship.

12. The method according to claim 10, wherein the acquiring, by the payment collection device, a payment amount due comprises:

receiving, by the payment collection device, the payment amount due input by the merchant; or

scanning, by the payment collection device, a merchandise code corresponding to a to-be-paid merchandise, to obtain merchandise information comprised in the merchandise code; constructing a merchandise price query request comprising the merchandise information and sending the merchandise price query request to the target server; and returning, by the target server, a merchandise price as the payment collection amount, corresponding to the merchandise information to the payment collection device.

13. The method according to claim 10, wherein before the sending, by the payment collection device, the payment collection request to the target server, the method further comprises:

encrypting, by the payment collection device, the payment collection request; and/or

signing, by the payment collection device, the payment collection request; and

before the deducting, by the target server, from the payment account corresponding to the payment account information, the payment amount due, the method further comprises:

decrypting, by the target server, the payment collection request; and/or

verifying, by the target server, a signature of the payment collection request, and determining that the verification succeeds.

14. The method according to claim 10, further comprising:

generating, by the target server, a payment record according to the payment collection request;

generating, by the target server, according to the payment record, a payment record identification code comprising the payment record identifier; and

issuing, by the target server, the payment record identification code to the purchasing user.

15. The method according to claim 10, further comprising:

receiving, by the target server, a device unbinding instruction sent by the merchant; and

deleting, by the target server, the stored association relationship according to the device unbinding instruction.

16. A payment collection method applied to the payment collection device according to any of claims 1 to 9, wherein the target server stores the association relationship between the device identifier of the payment collection device and the payment collection account of the

merchant, the payment collection account being managed by the target server, the method comprising:

acquiring, by the payment collection device, a payment amount due;

scanning the payment code provided by the purchasing user, to obtain payment account information comprised in the payment code, a payment account corresponding to the payment account information being managed by the target server;

constructing a payment collection request comprising the payment amount due, the payment account information, and the device identifier; and

sending the payment collection request to the target server for the target server to, according to the payment collection request, deduct, from the payment account corresponding to the payment account information, the payment amount due, and add, to the payment collection account associated with the device identifier, the payment amount due.

17. A payment collection system comprising the payment collection device and the target server according to any of claims 1 to 9,

the target server storing the association relationship between the device identifier of the payment collection device and the payment collection account of the merchant, the payment collection account being managed by the target server; and

the payment collection device acquiring the payment amount due; scanning the payment code provided by the purchasing user, to obtain payment account information comprised in the payment code, the payment account corresponding to the payment account information being managed by the target server; constructing a payment collection request comprising the payment amount due, the payment account information, and the device identifier; and sending the payment collection request to the target server; and

according to the payment collection request, the target server deducting, from the payment account corresponding to the payment account information, the payment amount due, and adding, to the payment collection account associated with the device identifier, the payment amount due.

18. A payment collection apparatus in communication with the payment collection device according to any of claims 1 to 9, wherein the apparatus stores the association relationship between the device identifier of the payment collection device and the payment account of the merchant, the payment collection account being managed by the apparatus, the apparatus comprising:

a receiving module configured to receive a payment collection request that is sent by the payment collection device and that comprises a payment amount due, payment account information, and the device identifier; the payment amount due being obtained by the payment collection device, the payment account information being obtained by the payment collection device scanning the payment code provided by the purchasing user, and the payment account corresponding to the payment account information being managed by the apparatus; and

a processing module configured to, according to the payment collection request, deduct, from the payment account corresponding to the payment account information, the payment amount due, and add, to the payment collection account associated with the device identifier, the payment amount due.

19. A device binding method applied to the payment collection device according to any of claims 1 to 9, the method comprising:

scanning, by the payment collection device, a configuration code that is provided by the merchant and that comprises payment collection account information corresponding to the payment collection account of the merchant, to obtain the payment collection account information, the payment collection account being managed by the target server;

constructing, by the payment collection device, a device binding request comprising the payment collection account information and the device identifier;

sending, by the payment collection device, the device binding request to the target server; and

establishing, by the target server, an association relationship between the payment collection account information and the device identifier and storing the association relationship.

20. A device binding system comprising the payment collection device and the target server according to any of claims 1 to 9, wherein:

the payment collection device is configured to scan a configuration code that is provided by a merchant and that comprises payment collection account information corresponding to a payment collection account of the merchant, to obtain the payment collection account information, the payment collection account being managed by the target server; construct a device binding request comprising the payment collection information and the device identifier; and send the device binding request to the target server; and

the target server is configured to establish an association relationship between the payment collection account information and the device identifier and store the association relationship.