mode; then select a service set identifier (SSID) of the smart broadcast device from a Wi-Fi list of the mobile phone; and enter a corresponding password, to establish a connection. The SSID and the corresponding password of the smart broadcast device can be pre-printed on a device body 100, for example, pre-printed on a lower surface of the device body 100 or another position.

[0049] After the mobile phone successfully accesses Wi-Fi of the smart broadcast device, the merchant can configure Wi-Fi connection information through the Wi-Fi connection, for example, an SSID and a password of a router. For example, after successfully accessing the Wi-Fi of the smart broadcast device, a client can display a message that the smart broadcast device is connected, and then the merchant can configure the SSID and password of the router for the smart broadcast device by using the client.

[0050] After receiving the client-configured SSID and password, the smart broadcast device can switch the Wi-Fi module to STA mode and then access the corresponding Wi-Fi network based on the configured SSID and password to access the Internet.

[0051] After accessing the Internet, the smart broadcast device can establish a persistent connection to the payment system based on a preconfigured address of the payment system, to receive various types of information sent by the payment system.

[0052] The address of the payment system is usually stored in the nonvolatile memory 109. A request packet for establishing a persistent connection is usually encapsulated by the processing module 106, and is usually sent and received by using the communication module 105.

[0053] An implementation procedure of each function is highlighted when each function of the smart broadcast device is subsequently described in the present specification. For a process in which hardware modules of the smart broadcast device cooperate to implement a corresponding function, references can be made to a related technology. Details are omitted in the present specification. For example, the processor 105 outputs an audio signal to a speaker, to drive the speaker to output corresponding audio, and this can be described as outputting corresponding audio by the smart broadcast device.

[0054] In another example, when a network of the smart broadcast device is configured, a Bluetooth connection can be first established to the smart broadcast device, and then Wi-Fi connection information is sent by using the Bluetooth

smart broadcast device is authorized.

[0066] For example, the payment system can verify whether the smart broadcast device is authorized on a hardware platform that stores identifiers of authorized devices.

[0067] Certainly, the payment system can perform local verification if the payment system locally stores a list of identifiers of authorized devices. Implementations are not limited in the present specification.

[0068] In response to determining that the smart broadcast device is unauthorized, the payment system can return a security prompt to the client to remind the merchant of a security risk.

[0069] Step 408: In response to determining that the smart broadcast device is authorized, the payment system can bind the device identifier to the merchant account.

[0070] Step 410: The payment system returns a binding success message to the client.

[0071] In the present implementation, after binding the device identifier to the merchant account, the payment system can further check whether the corresponding smart broadcast device is online, in other words, check whether the corresponding smart broadcast device establishes a persistent connection to the payment system. In response to determining that the smart broadcast device is online, the payment system can further send the binding success message to the smart broadcast device, and the smart broadcast device can further output audio indicating that the user account is successfully bound.

[0072] The binding success audio can be general audio, for example, an account is successfully bound. The binding success audio can further include information about the merchant account, for example, A's account is successfully bound. The information about the merchant account is included in the binding success message sent by the payment system. Implementations are not limited in the present implementation.

[0073] In the present implementation, the merchant can view a status of the smart broadcast device by using the client, for example, whether the smart broadcast device is bound, and whether the bound smart broadcast device is online. For processing and implementation of this part, references can be made to a related technology. Details are omitted in the present implementation.

[0079] Referring to FIG. 5, a power-on procedure of the smart broadcast device in the present implementation can include the following steps.

[0080] Step 502: Push and hold the power key.

[0081] In the present implementation, the power key 102 of the smart broadcast device can be pushed and held for power-on, for example, pushed and held for three seconds.

[0082] Step 504: The smart broadcast device determines whether start succeeds, and performs step 506 in response to determining that the start succeeds.

[0083] In the present implementation, in response to determining that the start fails, the smart broadcast device can output a power-on failure sound.

[0084] Step 506: The smart broadcast device detects whether a Wi-Fi connection is normal, and performs step 508 in response to determining that the Wi-Fi connection is normal.

[0085] In the present implementation, an LED status indicator flashes a red light when the smart broadcast device starts for the first time because Wi-Fi connection information is not configured.

[0086] In the present implementation, after the Wi-Fi connection information is configured, the smart broadcast device can attempt to access a network based on the previously configured Wi-Fi connection information if the start succeeds, for example, attempt to access a router based on an SSID and a password of the router.

[0087] If the network is successfully connected, it can be determined that the Wi-Fi connection is normal, and step 508 is further performed.

[0088] If the network is unsuccessfully connected, the LED status indicator can be controlled to flash a red light to prompt a network access failure.

[0089] Step 508: The smart broadcast device detects whether account binding is normal, and performs step 510 in response to determining that the account binding is normal.

[0090] According to step 506, the smart broadcast device can establish a persistent connection to the payment system based on a stored address of the payment system if the Wi-Fi connection is normal, and can send a binding query request to the payment system after establishing the persistent connection, to query a binding status between the device and the merchant account. The binding query request can include the device identifier of the device.

[0091] After receiving the binding query request, the payment system can

CLAIMS

1. A smart broadcast device for payment transmission, the smart broadcast device comprising:

a device body, wherein the device body comprises a first surface that is configured to display a payment graphic code and a lower surface that is configured to display an identifier of the smart broadcast device, wherein the first surface and the lower surface define an included angle between the first surface and the lower surface;

a communication module, installed inside the device body, configured to maintain a persistent network connection with a payment system outside the smart broadcast device to receive a trigger signal from the payment system through the persistent network connection, the trigger signal being associated with the payment graphic code, wherein the persistent network connection comprises a persistent wireless connection, a persistent wired connection, or both a persistent wireless and persistent wired connection;

a processing module, installed inside the device body, electrically connected to the communication module and configured to process the trigger signal received by the communication module to generate a payment result audio signal; and

a speaker, installed inside the device body, electrically connected to the processing module and configured to output a payment result audio in response to receiving the payment result audio signal from the processing module,

wherein the processing module is further configured to query, through the persistent network connection, a binding status between the smart broadcast device and a merchant account associated with the payment graphic code.

2. The smart broadcast device according to claim 1, wherein the first surface comprises a display screen, configured to display the payment graphic code.

3. The smart broadcast device according to claim 1, wherein a code layer of the payment graphic code is attached to the first surface.

4. The smart broadcast device according to claim 1, wherein the included angle between the first surface and the lower surface is less than 90 degrees.

5. The smart broadcast device according to claim 4, wherein the included angle between the first surface and the lower surface is from 20 degrees to 70 degrees.

6. The smart broadcast device according to claim 1, wherein speaker holes of the speaker are distributed on the left and right sides of the payment graphic code on the first surface.

7. The smart broadcast device according to claim 1, further comprising:

a USB interface, installed on the device body and configured to output power to charge an end-user device.

8. The smart broadcast device according to claim 1, further comprising:

an LED status indicator, installed on the device body and configured to output a corresponding light prompt based on a light drive signal output by the processing module.

9. The smart broadcast device according to claim 1, further comprising a volume adjustment button configured to adjust a volume of the payment result audio.

10. The smart broadcast device according to claim 1, further comprising:

a Wi-Fi probe module, installed inside the device body and configured to detect end-user device information, wherein the processing module is further configured to encapsulate, according to a predetermined protocol, the end-user device information that is detected by the Wi-Fi module, and report the end-user device information by using the communication module.

11. The smart broadcast device according to claim 1, further comprising:

a near field communication (NFC) module, installed inside the device body and configured to: when detecting an end-user device with an NFC function, send information comprised in the payment graphic code to the end-user device by using an NFC technology.