

MOBILE PAYMENT DEVICE

BACKGROUND OF THE INVENTION

1. Technical Field

5 The invention relates to the field of mobile payment, in particular to a mobile payment device.

2. Description of Related Art

At present, online payment usually requires a user to perform recharge on an internet platform before making purchases on the internet, with electronic purses as
10 an example

However, if the user uses a mobile phone, a PAD (personal digital assistant), or a tablet personal computer without online banking service, he/she cannot make purchases via online payment on such mobile terminals. The online payment has no reliable payment channel in the mobile internet, which makes the realization of
15 mobile payment difficult and the use of such inconvenient.

BRIEF SUMMARY OF THE INVENTION

To solve the technical problems of the prior art, the invention aims to provide a mobile payment device which has a reliable audio payment channel of online
20 payment for use in the mobile internet, facilitates mobile payment and brings convenience for users.

To fulfill the mentioned aim, the invention adopts the following technical scheme:

a mobile payment device comprises a mobile terminal with an audio interface
25 and a Mobile terminal POS matched with the mobile terminal, wherein the inlet end of the Mobile terminal POS has an inductive connection with a magnetic card or IC card used thereon; the output end of the mobile terminal POS is connected

with the audio interface; and the mobile terminal is connected with the backstage server via mobile internet.

Specifically, the mobile terminal POS is provided with a magnetic head having an inductive connection with the magnetic card or the IC card.

5 In case a magnetic card is used, the concrete working principle of the mobile payment device is as follows: firstly, read information from the magnetic card used on the mobile terminal POS via the magnetic head; secondly, send the magnetic card information to the mobile terminal via the audio interface; and thirdly, the mobile terminal acquires the magnetic card information and communicates with a
10 backstage server by using third-party payment software thereof via the mobile internet to complete the payment, which is convenient and reliable.

 In case an IC card is used, the concrete working principle of the mobile payment device is as follows: firstly, read information from the IC card used on the mobile terminal POS via the magnetic head; secondly, send the IC card information
15 to the mobile terminal via the audio interface; and thirdly, the mobile terminal acquires the IC card information and communicates with a backstage server by using third-party payment software thereof via the mobile internet to complete the payment, which is convenient and reliable.

 Specifically, the mobile terminal POS is a mobile phone, a PDA or a tablet
20 personal computer; correspondingly, the mobile terminal POS is a mobile phone POS, a PDA POS, or a tablet personal computer POS.

 For example, if the mobile terminal is a mobile phone, the corresponding mobile terminal POS is the mobile phone POS, and the mobile phone connects and communicates with the mobile phone POS via the audio interface; when the
25 magnetic card capable of being used on the mobile phone POS is swept on the mobile phone POS, the magnetic head of the mobile phone POS will read the information from the magnetic card, and then the mobile phone performs audio

sampling via the audio interface to acquire the magnetic card information and uses the third-party payment software APP thereon to carry out secure communication (for example, RSA-encrypted communication) with the backstage server via the mobile terminal, so as to complete the payment.

5 If the mobile terminal is a mobile phone, the corresponding mobile terminal POS is the mobile phone POS and the mobile phone connects and communicates with the mobile phone POS via the audio interface; when the IC card capable of being used on the mobile phone POS is swept on the mobile phone POS, the magnetic head of the mobile phone POS will read the information from the IC card,
10 and then the mobile phone performs audio sampling via the audio interface to acquire the IC card information and uses the third-party payment software APP thereon to carry out secure communication (for example, RSA-encrypted communication) with the backstage server via the mobile terminal, so as to complete the payment.

15 Compared with the prior art, the invention has the following advantages:

the mobile payment device provides a reliable payment channel of the online payment for use in the mobile internet, makes payment convenient, brings easy access for the users and meets the use demands of the users.

20 The invention is further described in detail through the attached drawings and the embodiment.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Figure 1 is a structural view of a preferable embodiment of the mobile payment device of the invention.

25 Figure 2 is a structural view of the mobile terminal as shown in figure 1;

Figure 3 is a structural view of the mobile terminal POS as shown in figure 1.

DETAILED DESCRIPTION OF THE INVENTION

As shown in figures 1-3, a mobile payment device mainly comprises a mobile terminal with an audio interface and a mobile terminal POS (Point of Sale) matched with the mobile terminal, wherein the inlet end of the mobile terminal POS has an inductive connection with a magnetic card or IC card used thereon; the output end of the mobile terminal POS is connected with the audio interface, and the mobile terminal is connected with the backstage server via mobile internet.

Specifically, the mobile terminal POS is provided with a magnetic head having an inductive connection with the magnetic card or the IC card.

10 In case a magnetic card is used, the concrete working principle of the mobile payment device is as follows: firstly, read information from the magnetic card used on the mobile terminal POS via the magnetic head; secondly, send the magnetic card information to the mobile terminal via the audio interface; and thirdly, the mobile terminal acquires the magnetic card information and communicates with a backstage server by using third-party payment software thereof via the mobile internet to complete the payment, which is convenient and reliable.

In case a IC card is used, the concrete working principle of the mobile payment device is as follows: firstly, read information from the IC card used on the mobile terminal POS via the magnetic head; secondly, send the IC card information to the mobile terminal via the audio interface; and thirdly, the mobile terminal acquires the IC card information and communicates with a backstage server by using third-party payment software thereof via the mobile internet to complete the payment, which is convenient and reliable.

Specifically, the mobile terminal POS is a mobile phone, a PDA or a tablet personal computer; correspondingly, the mobile terminal POS is a mobile phone POS, a PDA POS, or a tablet personal computer POS.

For example, if the mobile terminal is a mobile phone, the corresponding

mobile terminal POS is the mobile phone POS, and the mobile phone connects and communicates with the mobile phone POS via the audio interface; when a magnetic card capable of being used on the mobile phone POS is swept on the mobile phone POS, the magnetic head of the mobile phone POS will read the information from the magnetic card, and the mobile phone performs audio sampling via the audio interface to acquire the magnetic card information and uses the third-party payment software APP thereon to carry out secure communication (for example, RSA-encrypted communication) with the backstage server via the mobile terminal, so as to complete the payment.

If the mobile terminal is a mobile phone, the corresponding mobile terminal POS is the mobile phone POS, and the mobile phone connects and communicates with the mobile phone POS via the audio interface; when an IC card capable of being used on the mobile phone POS is swept on the mobile phone POS, the magnetic head of the mobile phone POS will read the information from the IC card, and then the mobile phone performs audio sampling via the audio interface to acquire the IC card information and uses the third-party payment software APP thereon to carry out secure communication (for example, RSA-encrypted communication) with the backstage server via the mobile terminal, so as to complete the payment.

Skilled persons in field would be able to provide all kinds of changes and transformations which shall be within the protection scope of the claims of the invention according to the mentioned technical schemes and conception.

What is claimed is:

1. A mobile payment device, comprising a mobile terminal with an audio interface and a Point of Sale (POS) terminal matched with the mobile terminal, wherein the inlet end of the Mobile terminal POS has an inductive connection with a magnetic card or IC card used thereon; the output end of the mobile terminal POS is connected with the audio interface; and the mobile terminal is connected with the backstage server via mobile internet.

2. The mobile payment device according to claim 1, characterized in that: the mobile terminal POS is provided with a magnetic head having an inductive connection with the magnetic card or the IC card.

3. The mobile payment device according to claim 2, characterized in that: the mobile terminal POS is a mobile phone, PDA or tablet personal computer; correspondingly, the mobile terminal POS is a mobile phone POS, PDA POS, or tablet personal computer POS.