

CLAIMS

What is claimed is:

1. An information output method, applied to an information output device and comprising:

5 establishing, ~~by a long connection to a server~~ by using a communication module provided in the information output device, ~~a connection to a server based on maintaining an automatic connection heartbeat with the server at a predetermined frequency;~~

10 ;
 ~~sending, by the information output device, an~~ account number ~~to the server;~~
 ~~receiving, by~~information associated with the information output device, to the server;

15 outputting first content, wherein the first content comprises pre-stored content on the information output device and/or specified content sent by the server to the information output device;

20 receiving an output instruction for a payment receipt sent by the server based on the account number information, wherein the output instruction ~~instructs~~is used to instruct the information output device to output the payment receipt, and ~~wherein~~ the payment receipt ~~identifies~~is used to identify that a user has completed an online payment; and

~~outputting, by the information output device,~~ the payment receipt based on the output instruction, the outputting the payment receipt comprises:

25 suspending output of the first content; and
 outputting the payment receipt, and continuing to output the first content after output of the payment receipt is completed.

2. The method according to claim 1, further comprising:

30 receiving the account number information sent by a mobile device connected to the information output device, wherein the account number information is set by using a settings interface corresponding to the information output device displayed on the mobile device; and

 establishing a mapping relationship between the account number information and the information output device.

3. The method according to claim 1, wherein the information output device carries a two-dimensional code used for the user to make the online payment; and

correspondingly, before the receiving the output instruction for the payment receipt sent by the server based on the account number information, the method further comprises:

receiving a scan operation performed by the user for the two-dimensional code, so that the user makes the online payment by using the two-dimensional code, and sends the payment receipt corresponding to the online payment to the server.

4. The method according to claim 1, wherein the outputting the payment receipt comprises:

obtaining a pre-stored payment receipt output template;

combining the payment receipt output template with the payment receipt based on a predetermined rule to generate payment receipt output content; and outputting the payment receipt output content.

5. The method according to claim 4, wherein before the obtaining the pre-stored payment receipt output template, the method further comprises:

receiving the payment receipt output template sent by a mobile device connected to the information output device, wherein the payment receipt output template is set by using a settings interface corresponding to the information output device displayed on the mobile device; and

storing the payment receipt output template.

~~6. The method according to claim 1, wherein before the receiving the output instruction for the payment receipt sent by the server based on the account number, the method further comprises:~~

~~outputting first content, wherein the first content comprises pre-stored content on the information output device and/or specified content sent by the server to the information output device; and~~

~~correspondingly, the outputting the payment receipt comprises:~~

~~suspending output of the first content; and~~

~~outputting the payment receipt, and continuing to output the first content after~~

~~output of the payment receipt is completed.~~

67. The method according to any one of claims 1 to 56, wherein the ~~information output device comprises a communication module, and wherein the~~ communication module is a general packet radio service module.

78. An information output apparatus, applied to an information output device and comprising:

a connection module, configured to establish a long connection to a server ~~based on maintaining an automatic connection heartbeat~~ by using a communication module provided in the information output device; and send account number information associated with the information output device to the server ~~at a predetermined frequency; send an account number to the server;~~

a first receiving module, configured to receive an output instruction for a payment receipt sent by the server based on the account number information, wherein the output instruction ~~instructs~~ is used to instruct the information output device to output the payment receipt, and ~~wherein the~~ payment receipt ~~identifies~~ is used to identify that a user has completed an online payment; ~~and~~

a first output module, configured to output the payment receipt based on the output instruction; and

a second output module, configured to output first content before the output instruction for the payment receipt sent by the server based on the account number information is received, wherein the first content comprises pre-stored content on the information output device and/or specified content sent by the server to the information output device,

wherein the first output module comprises:

a suspending unit, configured to suspend output of the first content; and

a second output unit, configured to output the payment receipt, and continue to output the first content after output of the payment receipt is completed.

89. The apparatus according to claim 78, further comprising:

a second receiving module, configured to receive the account number information sent by a mobile device connected to the information output device, wherein the account number information is set by using a settings interface corresponding to the information

output device displayed on the mobile device; and

an establishing module, configured to establish a mapping relationship between the account number information and the information output device.

5 ~~940.~~ The apparatus according to claim ~~78~~, wherein the information output device carries a two-dimensional code used for the user to make the online payment; and correspondingly, the apparatus further comprises:

10 a third receiving module, configured to, before the output instruction for the payment receipt sent by the server based on the account number information is received, receive a scan operation performed by the user for the two-dimensional code, so that the user makes the online payment by using the two-dimensional code, and sends the payment receipt corresponding to the online payment to the server.

15 ~~104.~~ The apparatus according to claim ~~78~~, wherein the first output module comprises:

an acquisition unit, configured to obtain a pre-stored payment receipt output template;

20 a generation unit, configured to combine the payment receipt output template with the payment receipt based on a predetermined rule to generate payment receipt output content; and

a first output unit, configured to output the payment receipt output content.

~~112.~~ The apparatus according to claim ~~104~~, further comprising:

25 a fourth receiving module, configured to, before the pre-stored payment receipt output template is obtained, receive the payment receipt output template sent by a mobile device connected to the information output device, wherein the payment receipt output template is set by using a settings interface corresponding to the information output device displayed on the mobile device; and

a storage module, configured to store the payment receipt output template.

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~~13. The apparatus according to claim 8, wherein the apparatus further comprises:
a second output module, configured to output first content before the output instruction for the payment receipt sent by the server based on the account number is received, wherein the first content comprises pre-stored content on the information~~

~~output device and/or specified content sent by the server to the information output device; and~~

~~correspondingly, the first output module comprises:~~

~~a suspending unit, configured to suspend output of the first content; and~~

~~a second output unit, configured to output the payment receipt, and continue to output the first content after output of the payment receipt is completed.~~

124. The apparatus according to any one of claims ~~78~~ to ~~113~~, wherein the ~~information output device comprises a communication module, and wherein the~~ communication module is a general packet radio service module.

135. An information output device, comprising:

a communication module, configured to establish a long connection to a server ~~based on maintaining an automatic connection heartbeat with the server at a~~ predetermined frequency;

a processor, configured to send ~~an~~ account number information associated with the information output device to the server; ~~and output first content, wherein the first content includes pre-stored content on the information output device and/or specified content sent by the server to the information output device; and~~ receive an output instruction for a payment receipt sent by the server based on the account number information, wherein the output instruction ~~instructs~~ is used to instruct the information output device to output the payment receipt, and ~~wherein~~ the payment receipt ~~identifies~~ is used to identify that a user has completed an online payment; and

a player, configured to output the payment receipt based on the output instruction, wherein the processor is further configured to: suspend output of the first content; and output the payment receipt, and continue to output the first content after output of the payment receipt is completed.

146. The device according to claim 135, wherein the ~~information output~~ device carries a two-dimensional code used for the user to make the online payment.

157. The device according to claim 135, wherein the ~~information output~~ device carries a two-dimensional code for entering a settings interface corresponding to the information output device, and the settings interface is used by the user to set related

information about the information output device, wherein

the related information comprises at least one of the account number information, a payment receipt output template, output volume, output content, output time, and output frequency.

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168. The device according to any one of claims 135 to 157, wherein the communication module is a general packet radio service module.

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179. An information output device, comprising:

a processor; and

a memory configured to store computer-executable instructions, wherein when the executable instructions are executed, the processor performs the following steps:

establishing a long connection to a server ~~based on maintaining an automatic connection heartbeat with the server at~~ by using a predetermined frequency;

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communication module provided in the information output device;

sending ~~an~~ account number information associated with the information output device to the server;

outputting first content, wherein the first content includes pre-stored content on the information output device and/or specified content sent by the server to the information output device;

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receiving an output instruction for a payment receipt sent by the server based on the account number information, wherein the output instruction ~~instructs~~ is used to instruct the information output device to output the payment receipt, and ~~wherein~~ the payment receipt ~~identifies~~ is used to identify that a user has completed an online payment; and

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outputting the payment receipt based on the output instruction, wherein the outputting the payment receipt comprises the following steps:

suspending output of the first content; and

outputting the payment receipt, and continuing to output the first content after output of the payment receipt is completed.

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1820. A storage medium for storing computer-executable instructions, wherein when the executable instructions are executed, the following procedure is implemented:

establishing, ~~a long connection to a server by an~~ a long connection to a server by using a communication module

provided in the information output device, ~~a connection to a server based on maintaining an automatic connection heartbeat;~~

sending account number information associated with the ~~server at a predetermined frequency;~~

5 ~~sending, by the~~ information output device, ~~an account number~~ to the server;

outputting first content, wherein the first content comprises pre-stored content on the information output device and/or specified content sent by the server to the information output device;

10 receiving, ~~by the information output device,~~ an output instruction for a payment receipt sent by the server based on the account number information, wherein the output instruction ~~instructs~~is used to instruct the information output device to output the payment receipt, and ~~wherein~~ the payment receipt ~~identifies~~is used to identify that a user has completed an online payment; and

15 outputting, ~~by the information output device,~~ the payment receipt based on the output instruction, wherein the outputting the payment receipt comprises:

suspending output of the first content; and

outputting the payment receipt, and continuing to output the first content after output of the payment receipt is completed.