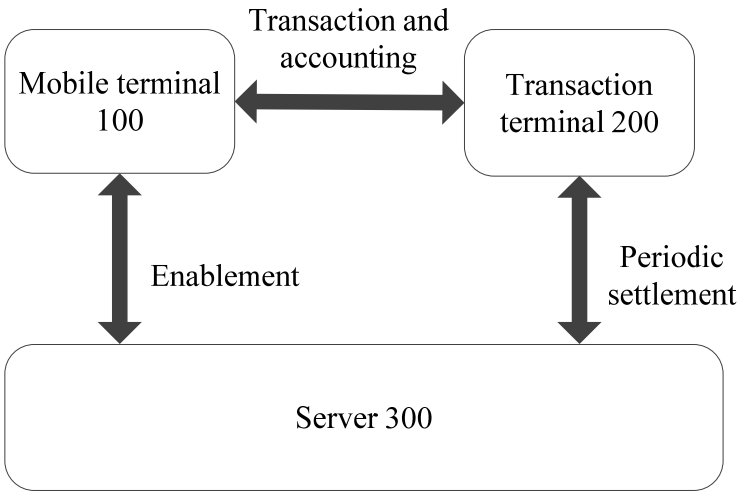

Transaction and accounting
Mobile terminal 100
Transaction terminal 200
Enablement
Periodic settlement
Server 300

FIG. 1

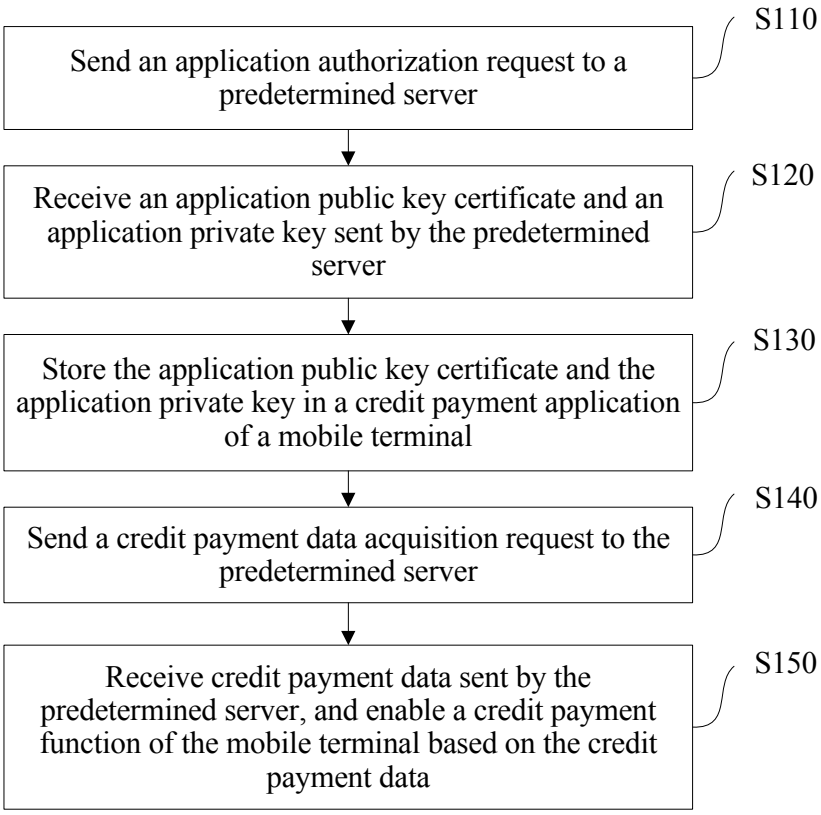

S110
Send an application authorization request to a predetermined server
S120
Receive an application public key certificate and an application private key sent by the predetermined server
S130
Store the application public key certificate and the application private key in a credit payment application of a mobile terminal
S140
Send a credit payment data acquisition request to the predetermined server
S150
Receive credit payment data sent by the predetermined server, and enable a credit payment function of the mobile terminal based on the credit payment data

FIG. 2

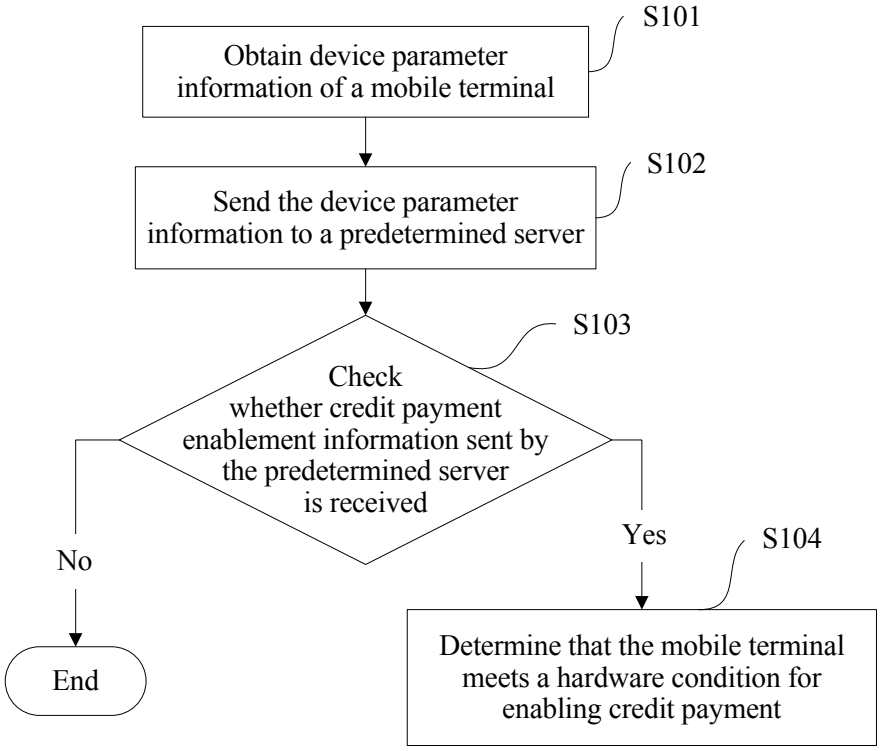

S101
Obtain device parameter information of a mobile terminal
S102
Send the device parameter information to a predetermined server
S103
Check whether credit payment enablement information sent by the predetermined server is received
No
End
Yes
S104
Determine that the mobile terminal meets a hardware condition for enabling credit payment

FIG. 3

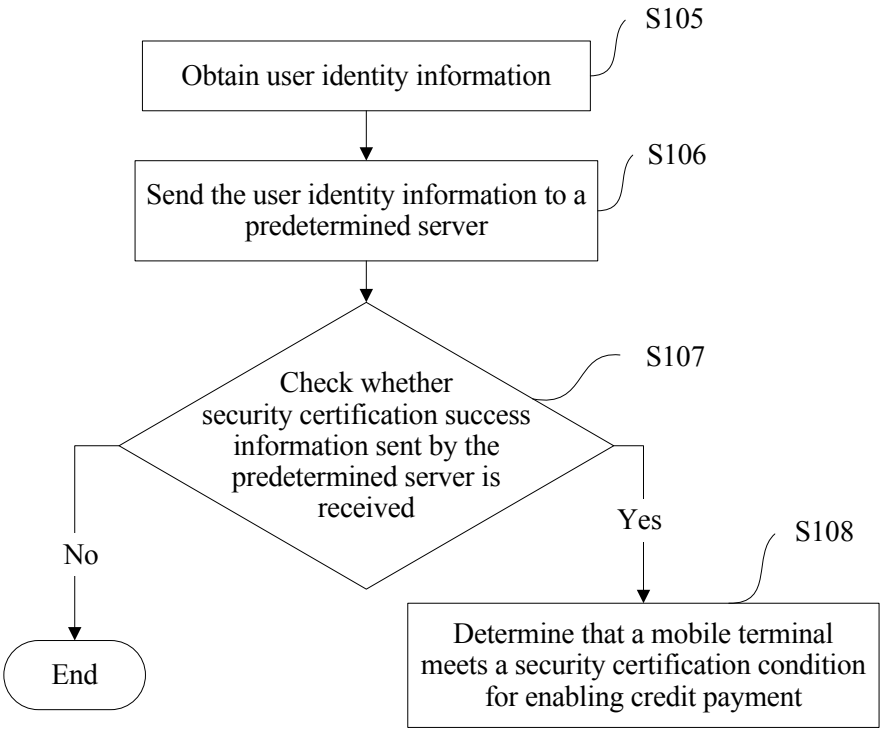

S105
Obtain user identity information
S106
Send the user identity information to a predetermined server
S107
Check whether security certification success information sent by the predetermined server is received
No
End
Yes
S108
Determine that a mobile terminal meets a security certification condition for enabling credit payment

FIG. 4

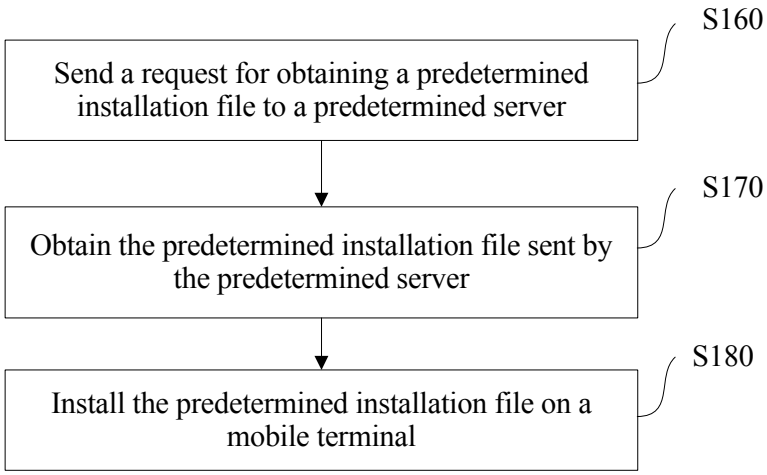

S160
Send a request for obtaining a predetermined installation file to a predetermined server
S170
Obtain the predetermined installation file sent by the predetermined server
S180
Install the predetermined installation file on a mobile terminal

FIG. 5

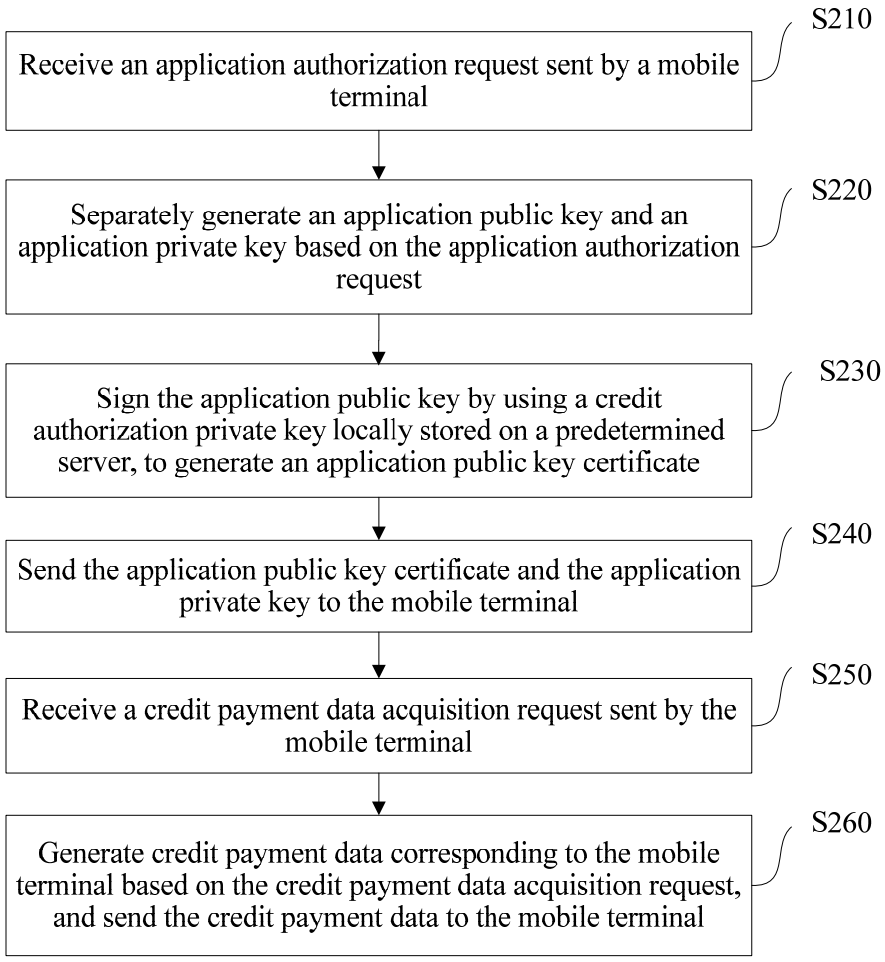

S210
Receive an application authorization request sent by a mobile terminal
S220
Separately generate an application public key and an application private key based on the application authorization request
S230
Sign the application public key by using a credit authorization private key locally stored on a predetermined server, to generate an application public key certificate
S240
Send the application public key certificate and the application private key to the mobile terminal
S250
Receive a credit payment data acquisition request sent by the mobile terminal
S260
Generate credit payment data corresponding to the mobile terminal based on the credit payment data acquisition request, and send the credit payment data to the mobile terminal

FIG. 6

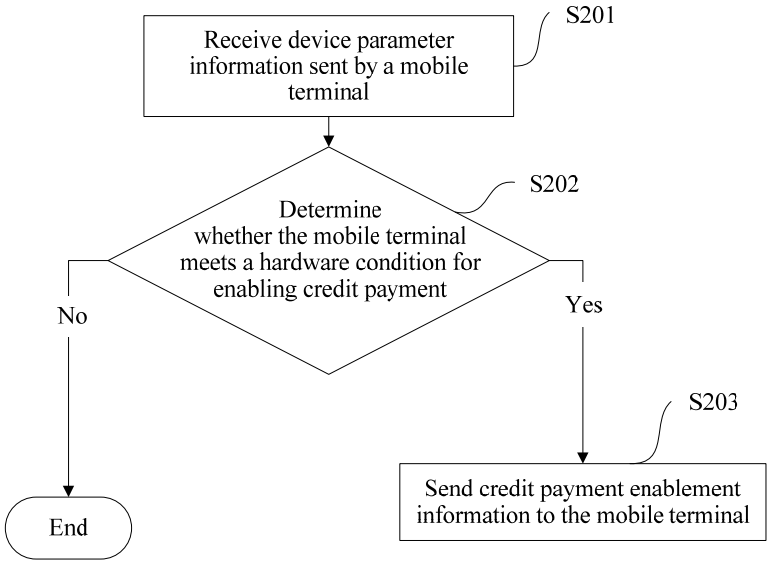


FIG. 7

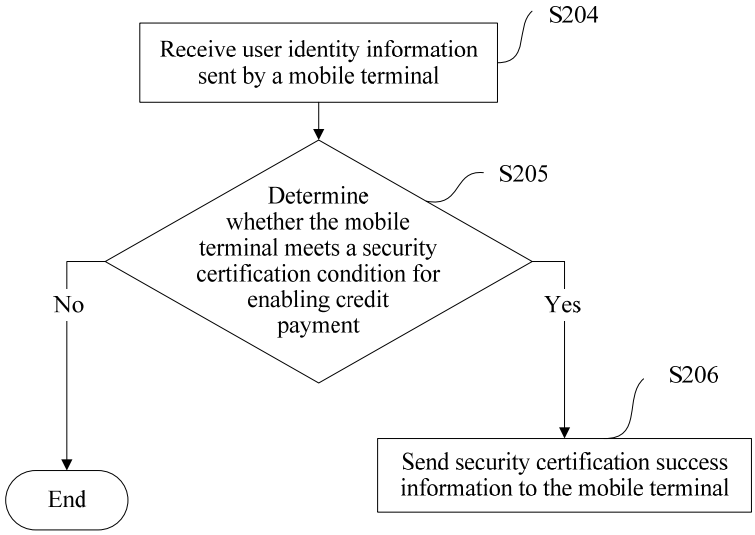


FIG. 8

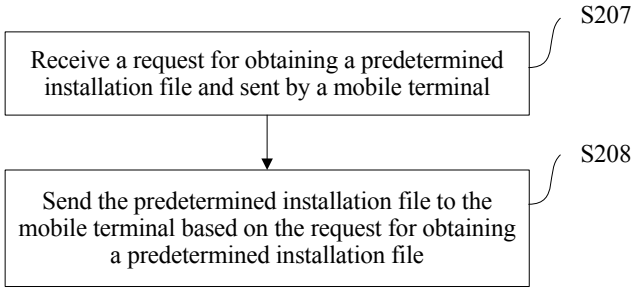


FIG. 9

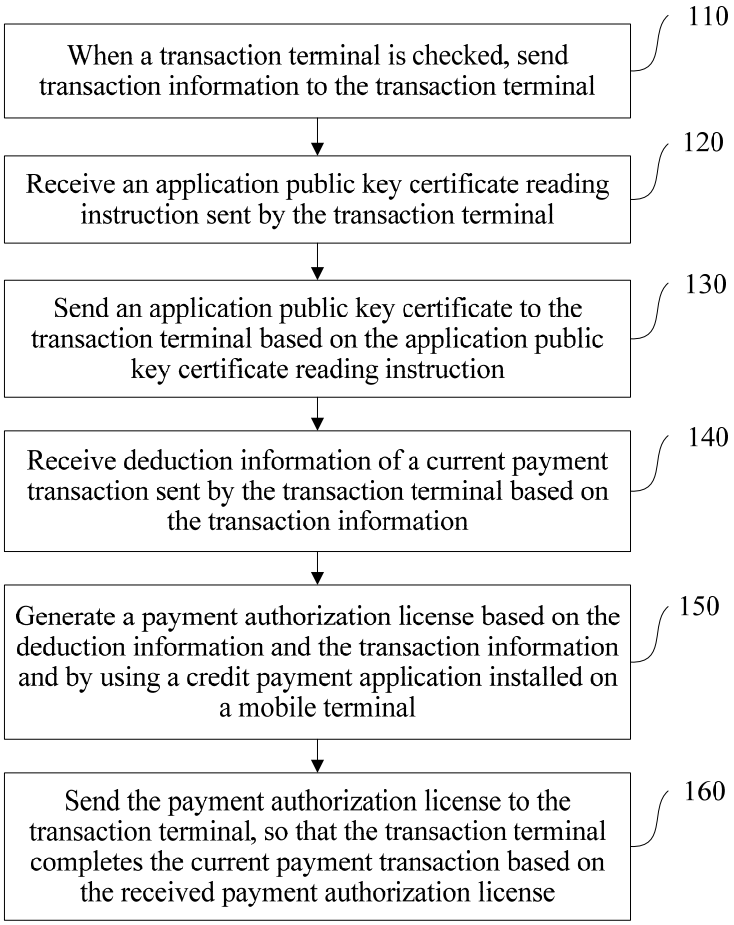

When a transaction terminal is checked, send transaction information to the transaction terminal
110
Receive an application public key certificate reading instruction sent by the transaction terminal
120
Send an application public key certificate to the transaction terminal based on the application public key certificate reading instruction
130
Receive deduction information of a current payment transaction sent by the transaction terminal based on the transaction information
140
Generate a payment authorization license based on the deduction information and the transaction information and by using a credit payment application installed on a mobile terminal
150
Send the payment authorization license to the transaction terminal, so that the transaction terminal completes the current payment transaction based on the received payment authorization license
160

FIG. 10

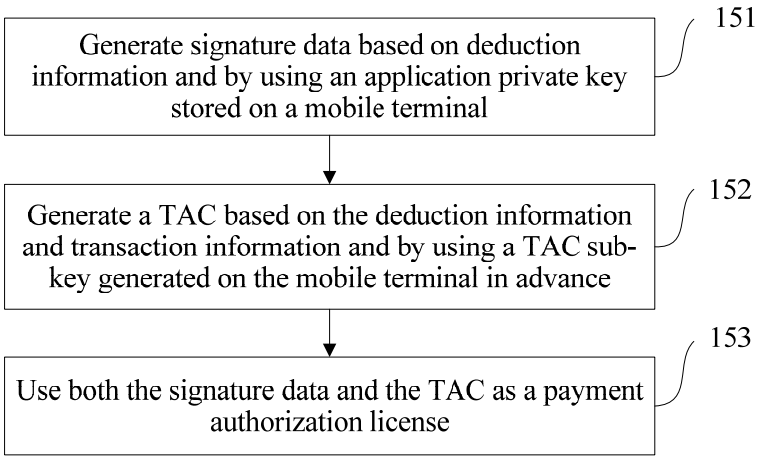

Generate signature data based on deduction information and by using an application private key stored on a mobile terminal
151
Generate a TAC based on the deduction information and transaction information and by using a TAC sub-key generated on the mobile terminal in advance
152
Use both the signature data and the TAC as a payment authorization license
153

FIG. 11

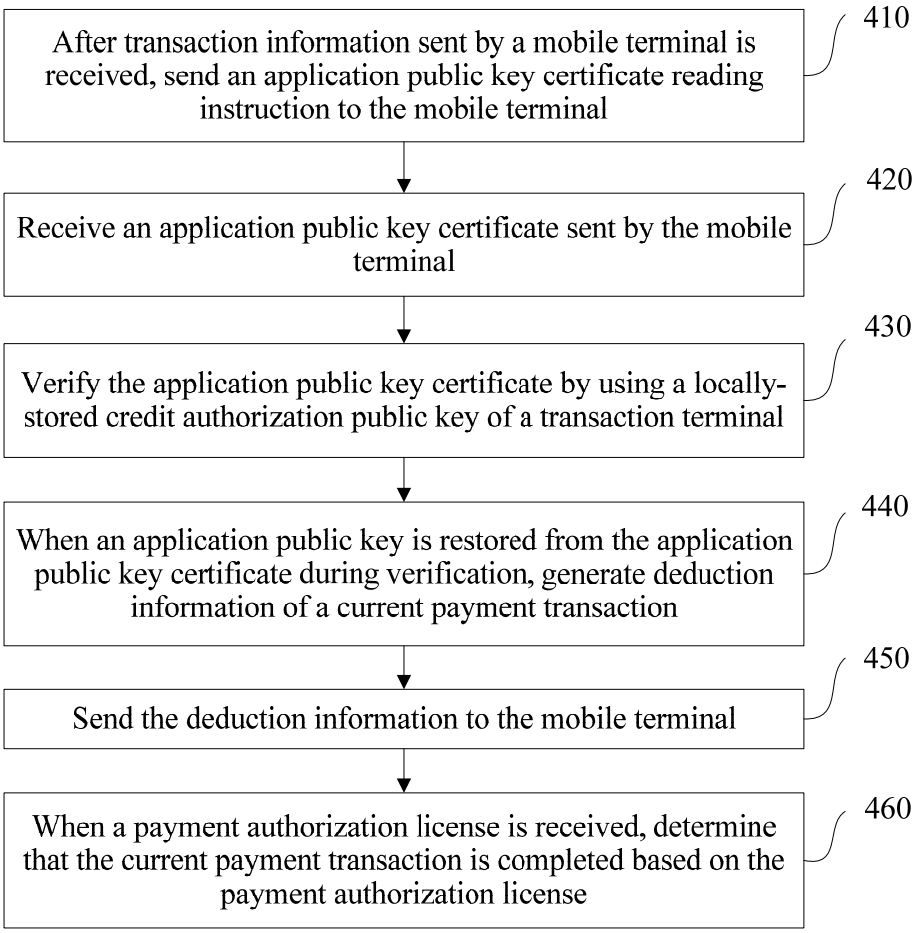

After transaction information sent by a mobile terminal is received, send an application public key certificate reading instruction to the mobile terminal
410
Receive an application public key certificate sent by the mobile terminal
420
Verify the application public key certificate by using a locally-stored credit authorization public key of a transaction terminal
430
When an application public key is restored from the application public key certificate during verification, generate deduction information of a current payment transaction
440
Send the deduction information to the mobile terminal
450
When a payment authorization license is received, determine that the current payment transaction is completed based on the payment authorization license
460

FIG. 12

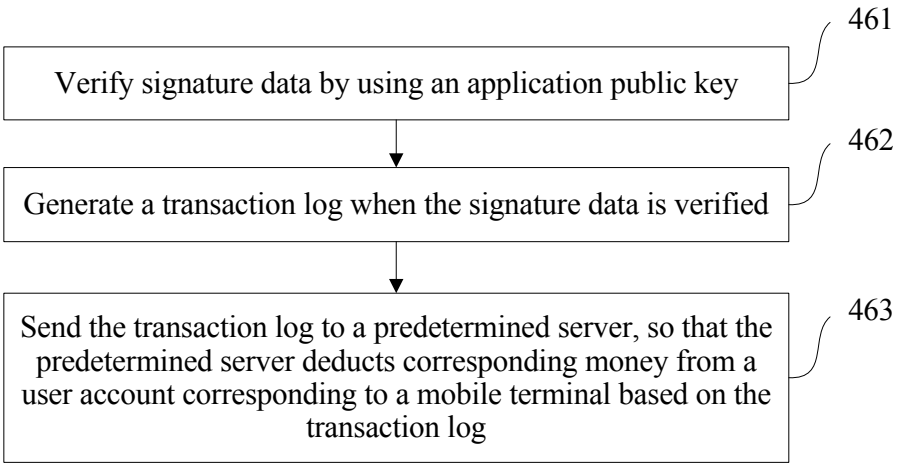

Verify signature data by using an application public key
461
Generate a transaction log when the signature data is verified
462
Send the transaction log to a predetermined server, so that the predetermined server deducts corresponding money from a user account corresponding to a mobile terminal based on the transaction log
463

FIG. 13

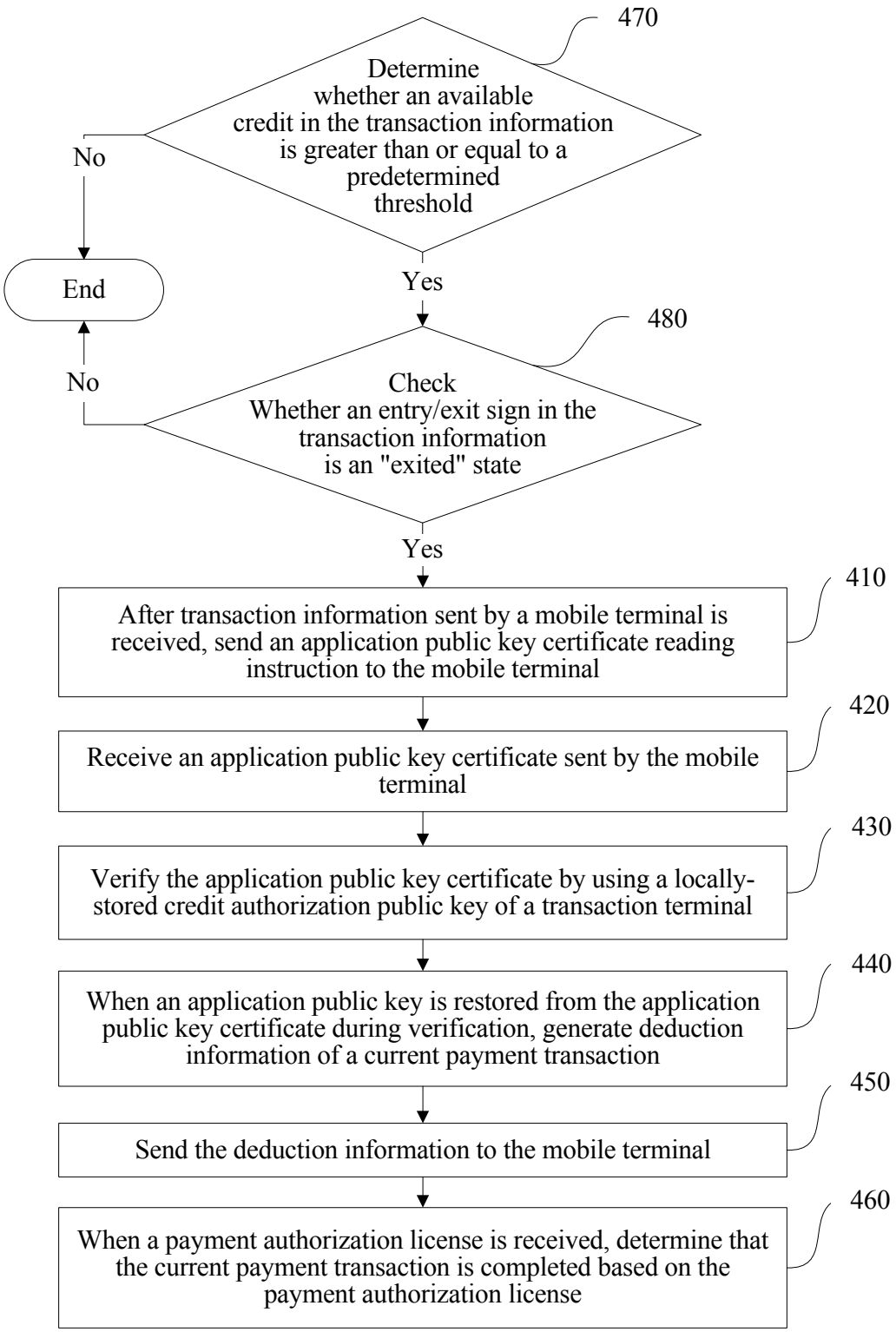

470
Determine whether an available credit in the transaction information is greater than or equal to a predetermined threshold
No
End
Yes
480
Check Whether an entry/exit sign in the transaction information is an "exited" state
No
Yes
410
After transaction information sent by a mobile terminal is received, send an application public key certificate reading instruction to the mobile terminal
420
Receive an application public key certificate sent by the mobile terminal
430
Verify the application public key certificate by using a locally-stored credit authorization public key of a transaction terminal
440
When an application public key is restored from the application public key certificate during verification, generate deduction information of a current payment transaction
450
Send the deduction information to the mobile terminal
460
When a payment authorization license is received, determine that the current payment transaction is completed based on the payment authorization license

FIG. 14

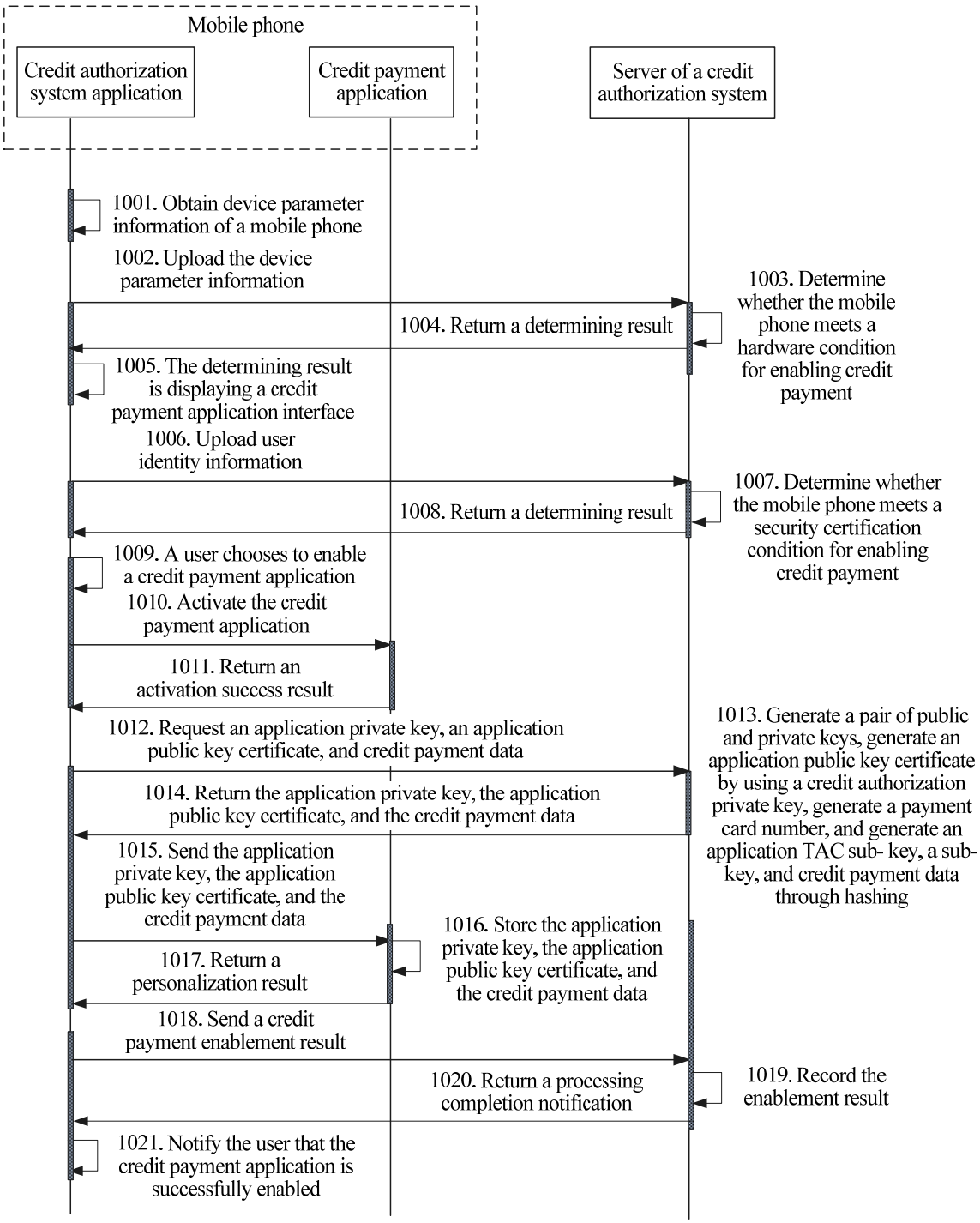

Mobile phone
Credit authorization system application
Credit payment application
Server of a credit authorization system
1001. Obtain device parameter information of a mobile phone
1002. Upload the device parameter information
1003. Determine whether the mobile phone meets a hardware condition for enabling credit payment
1004. Return a determining result
1005. The determining result is displaying a credit payment application interface
1006. Upload user identity information
1007. Determine whether the mobile phone meets a security certification condition for enabling credit payment
1008. Return a determining result
1009. A user chooses to enable a credit payment application
1010. Activate the credit payment application
1011. Return an activation success result
1012. Request an application private key, an application public key certificate, and credit payment data
1013. Generate a pair of public and private keys, generate an application public key certificate by using a credit authorization private key, generate a payment card number, and generate an application TAC sub- key, a sub-key, and credit payment data through hashing
1014. Return the application private key, the application public key certificate, and the credit payment data
1015. Send the application private key, the application public key certificate, and the credit payment data
1016. Store the application private key, the application public key certificate, and the credit payment data
1017. Return a personalization result
1018. Send a credit payment enablement result
1019. Record the enablement result
1020. Return a processing completion notification
1021. Notify the user that the credit payment application is successfully enabled

FIG. 15

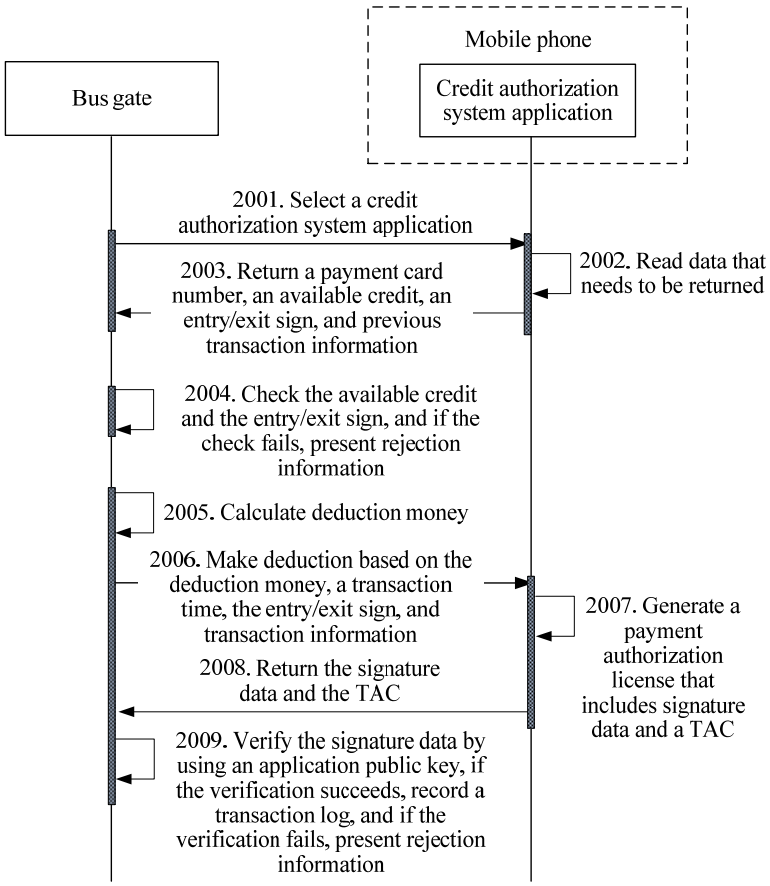

Mobile phone
Bus gate
Credit authorization system application
2001. Select a credit authorization system application
2002. Read data that needs to be returned
2003. Return a payment card number, an available credit, an entry/exit sign, and previous transaction information
2004. Check the available credit and the entry/exit sign, and if the check fails, present rejection information
2005. Calculate deduction money
2006. Make deduction based on the deduction money, a transaction time, the entry/exit sign, and transaction information
2007. Generate a payment authorization license that includes signature data and a TAC
2008. Return the signature data and the TAC
2009. Verify the signature data by using an application public key, if the verification succeeds, record a transaction log, and if the verification fails, present rejection information

FIG. 16

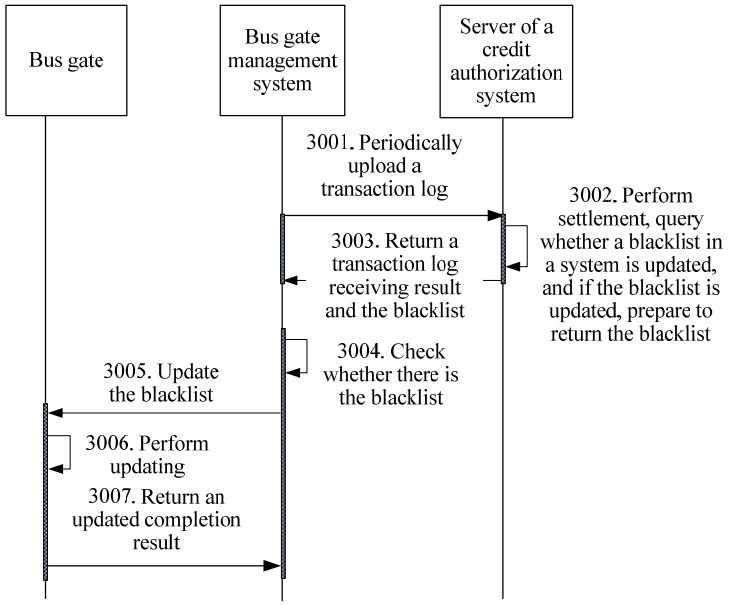

Bus gate
Bus gate management system
Server of a credit authorization system
3001. Periodically upload a transaction log
3002. Perform settlement, query whether a blacklist in a system is updated, and if the blacklist is updated, prepare to return the blacklist
3003. Return a transaction log receiving result and the blacklist
3004. Check whether there is the blacklist
3005. Update the blacklist
3006. Perform updating
3007. Return an updated completion result

FIG. 17

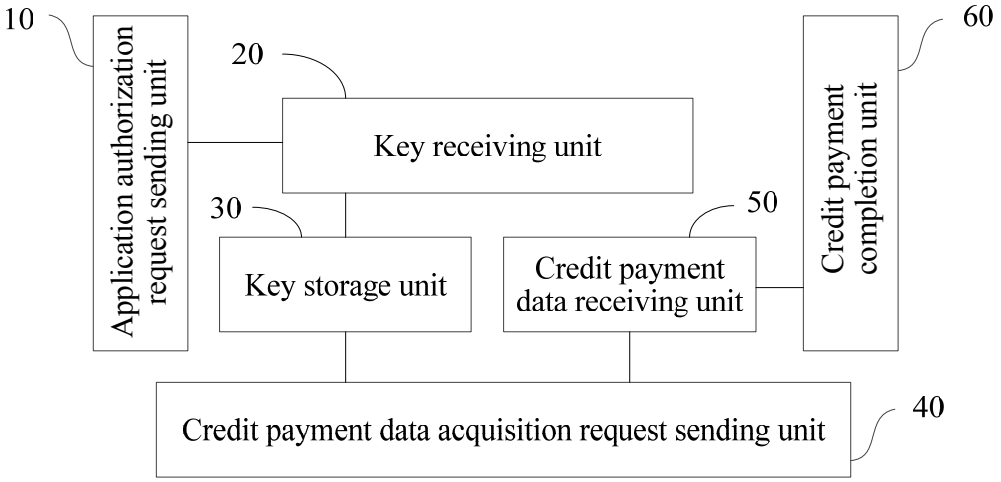

10
Application authorization request sending unit
20
Key receiving unit
30
Key storage unit
50
Credit payment data receiving unit
60
Credit payment completion unit
Credit payment data acquisition request sending unit
40

FIG. 18

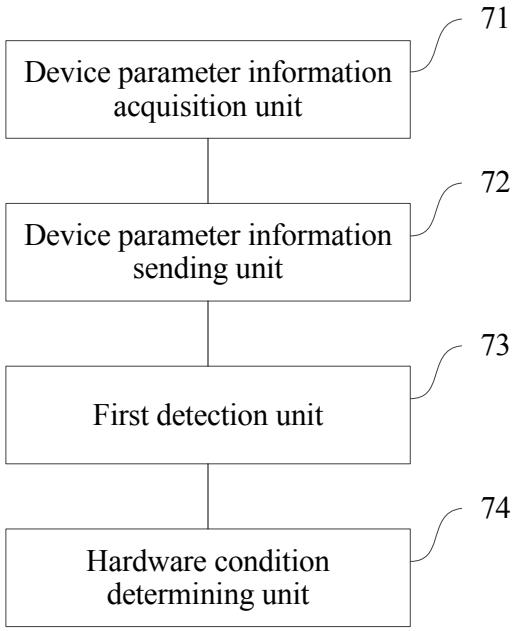

71
Device parameter information acquisition unit
72
Device parameter information sending unit
73
First detection unit
74
Hardware condition determining unit

FIG. 19

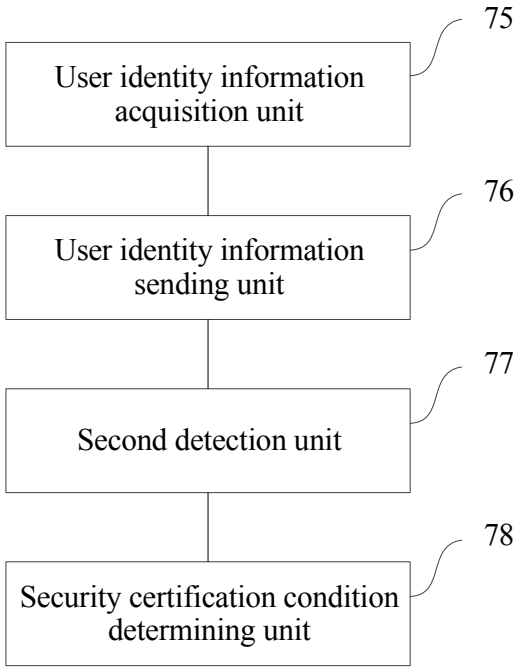

75
User identity information acquisition unit
76
User identity information sending unit
77
Second detection unit
78
Security certification condition determining unit

FIG. 20

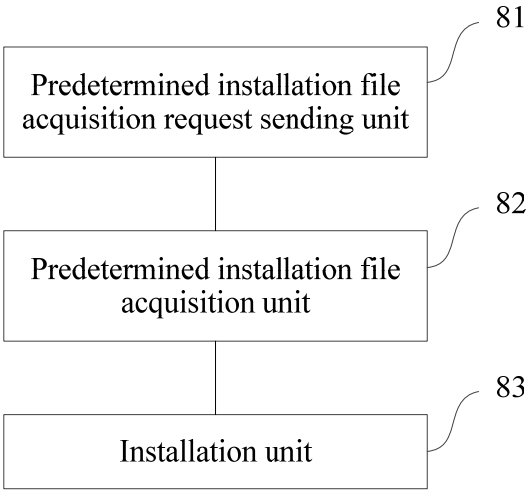

81
Predetermined installation file acquisition request sending unit
82
Predetermined installation file acquisition unit
83
Installation unit

FIG. 21

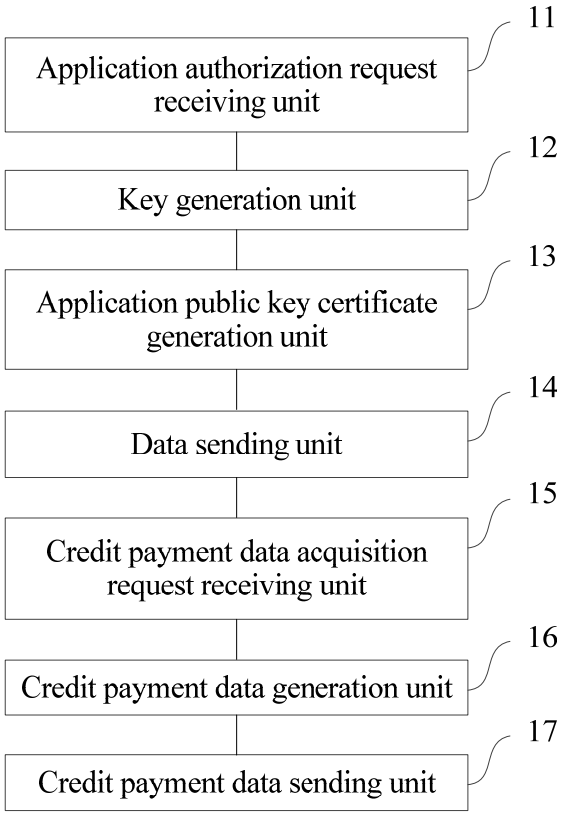

11
Application authorization request receiving unit
12
Key generation unit
13
Application public key certificate generation unit
14
Data sending unit
15
Credit payment data acquisition request receiving unit
16
Credit payment data generation unit
17
Credit payment data sending unit

FIG. 22

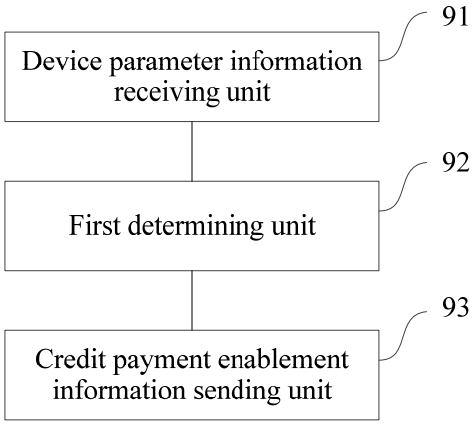


FIG. 23

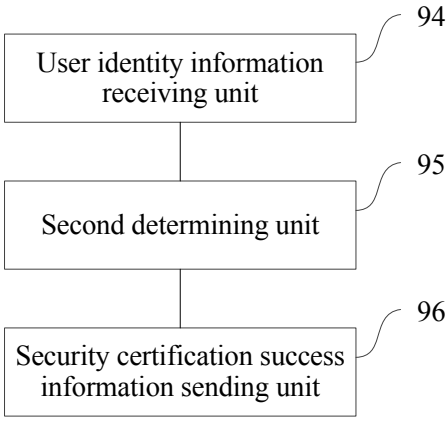


FIG. 24

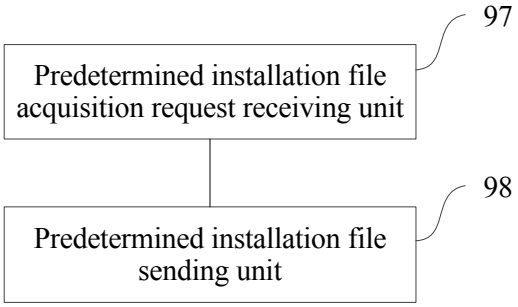


FIG. 25