FIG. 1

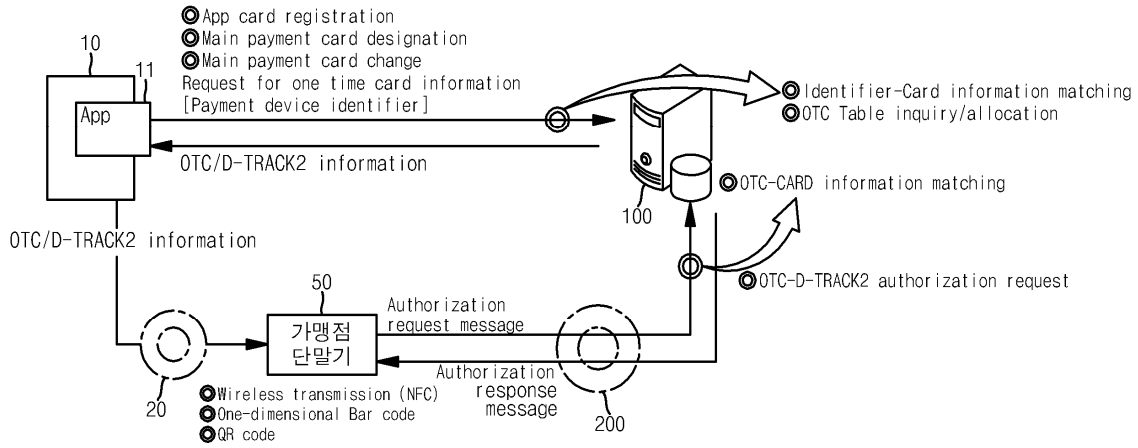

App card registration
Main payment card designation
Main payment card change
Request for one time card information
[Payment device identifier]
10
11
App
OTC/D-TRACK2 information
OTC/D-TRACK2 information
Identifier-Card information matching
OTC Table inquiry/allocation
OTC-CARD information matching
100
OTC-D-TRACK2 authorization request
50
가맹점
단말기
Authorization
request message
Authorization
response
message
200
20
Wireless transmission (NFC)
One-dimensional Bar code
QR code

FIG. 2

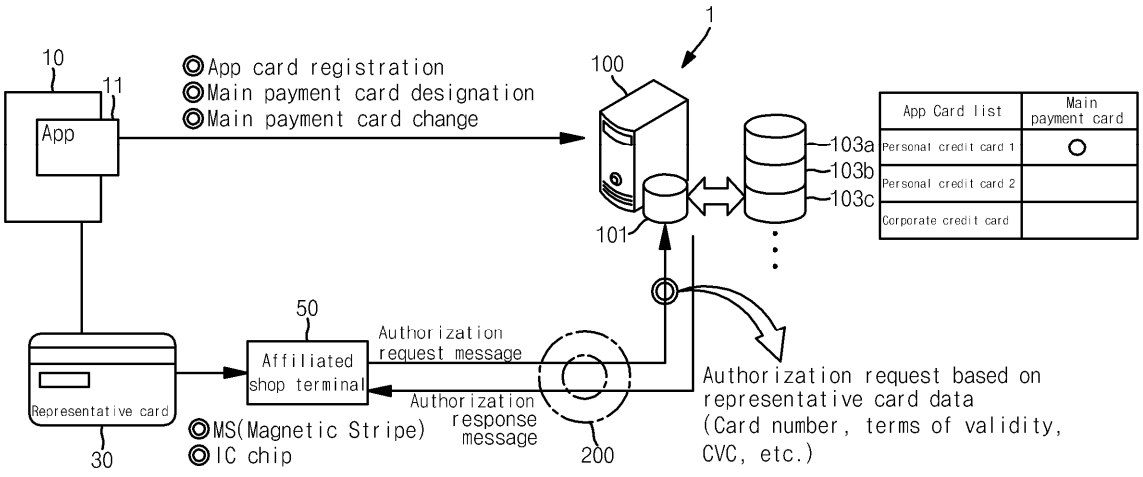

1
10
11
App
App card registration
Main payment card designation
Main payment card change
100
101
103a
103b
103c
App Card list
Main payment card
Personal credit card 1
Personal credit card 2
Corporate credit card
50
Affiliated
shop terminal
Authorization
request message
Authorization
response
message
200
Representative card
30
MS(Magnetic Stripe)
IC chip
Authorization request based on
representative card data
(Card number, terms of validity,
CVC, etc.)

FIG. 3

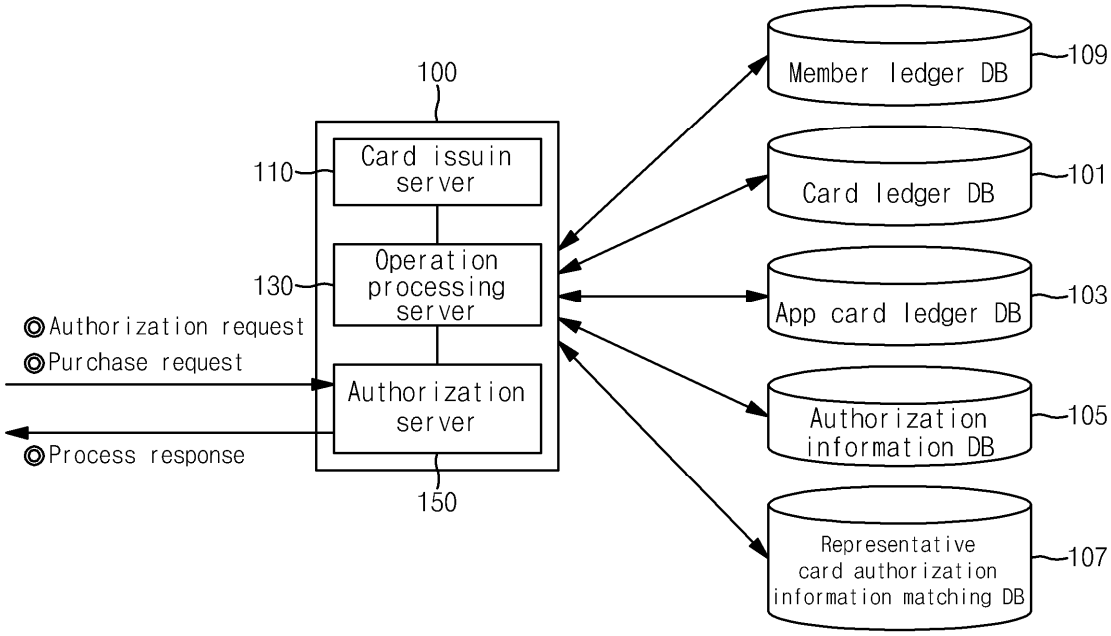

100
110
Card issuin server
130
Operation processing server
Authorization server
150
Authorization request
Purchase request
Process response
Member ledger DB
109
Card ledger DB
101
App card ledger DB
103
Authorization information DB
105
Representative card authorization information matching DB
107

FIG. 4A

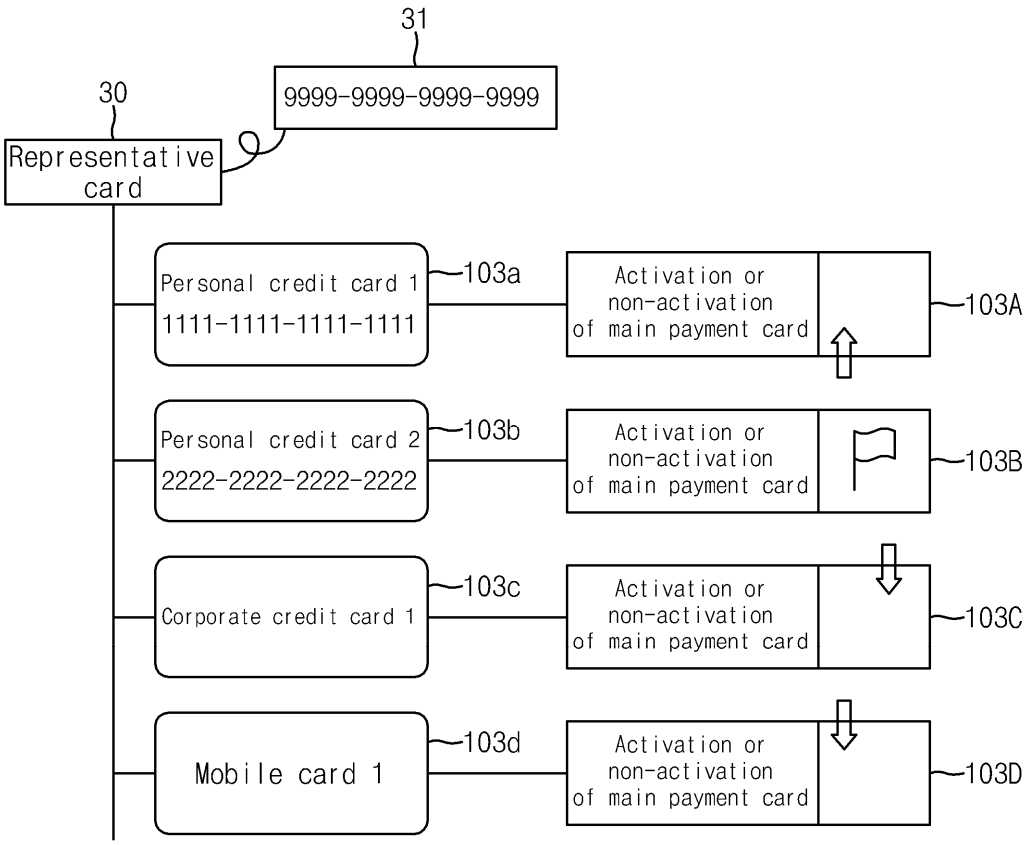


FIG. 4B

Sequence	Authorization time	Real payment card number	Representative card number	Authorization number	Authorization card number	Authorized amount	Affiliated shop
1	2099.01.05	20:48	1111-1111-1111-1111	9999-9999-9999-9999	1321312	4,500	00 Supermarket
2	2099.01.05	22:01	2222-22222-2222-2222	9999-9999-9999-9999	1321313	17,000	00 Coffee
3	2099.01.06	14:22	3333-3333-3333-3333	9999-9999-9999-9999	1321314	25,000	0 Cinema

⋮

FIG. 5

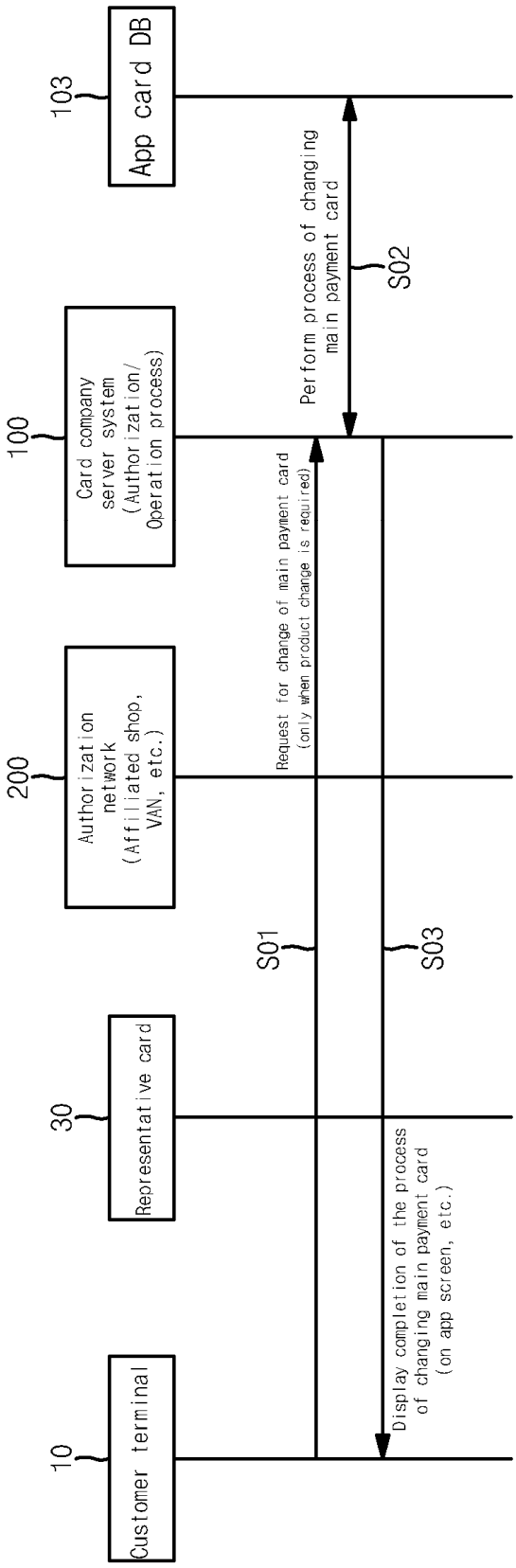

10
Customer terminal
30
Representative card
200
Authorization network (Affiliated shop, VAN, etc.)
100
Card company server system (Authorization/ Operation process)
103
App card DB
S01
Request for change of main payment card (only when product change is required)
S02
Perform process of changing main payment card
S03
Display completion of the process of changing main payment card (on app screen, etc.)

FIG. 6A

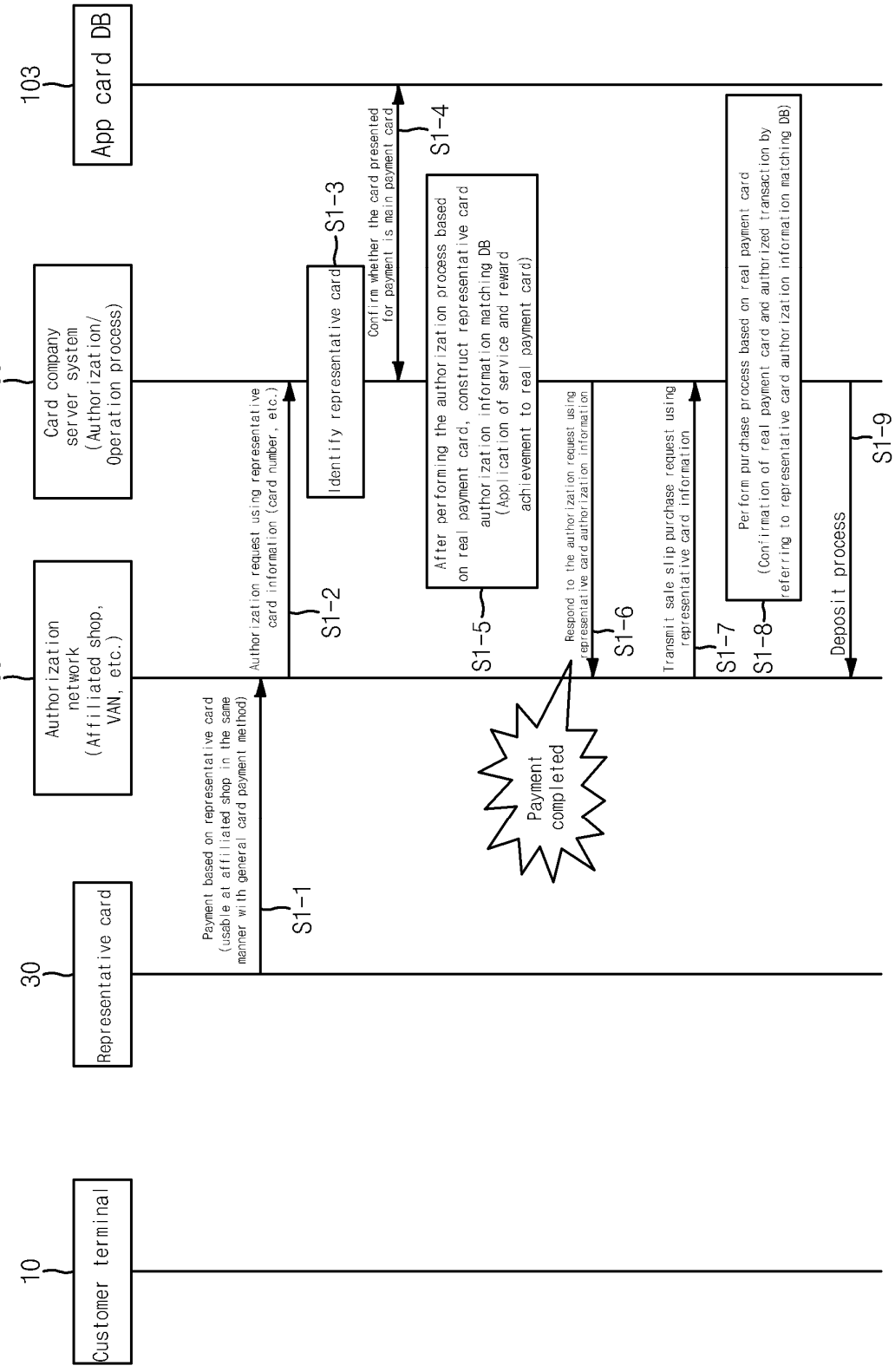

10
Customer terminal
30
Representative card
200
Authorization network (Affiliated shop, VAN, etc.)
100
Card company server system (Authorization/ Operation process)
103
App card DB
Payment based on representative card (usable at affiliated shop in the same manner with general card payment method)
S1-1
Authorization request using representative card information (card number, etc.)
S1-2
Identify representative card
S1-3
Confirm whether the card presented for payment is main payment card
S1-4
After performing the authorization process based on real payment card, construct representative card authorization information matching DB (Application of service and reward achievement to real payment card)
S1-5
Respond to the authorization request using representative card authorization information
S1-6
Transmit sale slip purchase request using representative card information
S1-7
Perform purchase process based on real payment card (Confirmation of real payment card and authorized transaction by referring to representative card authorization information matching DB)
S1-8
Deposit process
S1-9
Payment completed

FIG. 6B

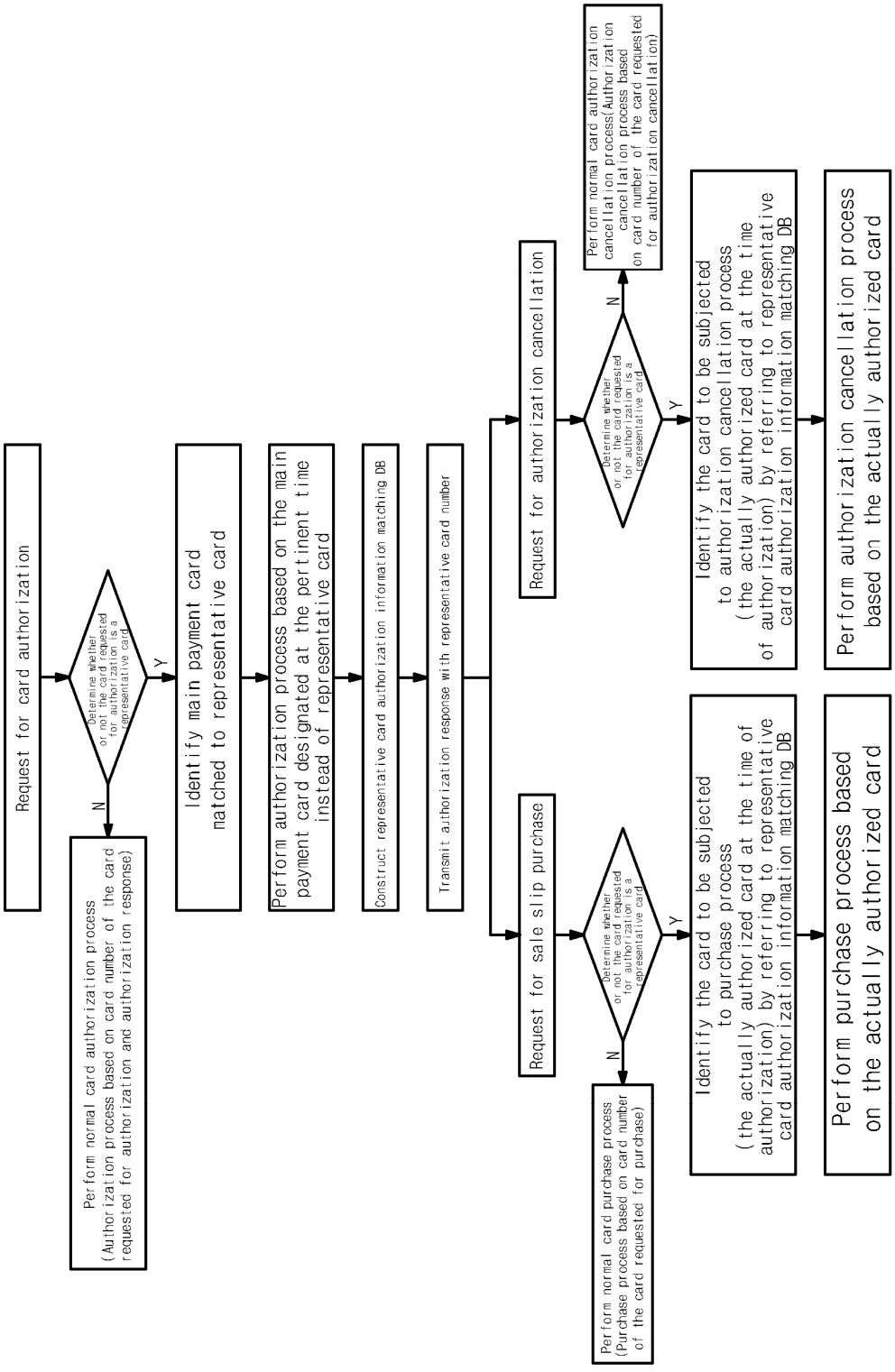

Request for card authorization
Determine whether or not the card requested for authorization is a representative card
N
Y
Perform normal card authorization process (Authorization process based on card number of the card requested for authorization and authorization response)
Identify main payment card matched to representative card
Perform authorization process based on the main payment card designated at the pertinent time instead of representative card
Construct representative card authorization information matching DB
Transmit authorization response with representative card number
Request for sale slip purchase
Request for authorization cancellation
Determine whether or not the card requested for authorization is a representative card
N
Y
Perform normal card purchase process (Purchase process based on card number of the card requested for purchase)
Identify the card to be subjected to purchase process (the actually authorized card at the time of authorization) by referring to representative card authorization information matching DB
Perform purchase process based on the actually authorized card
Determine whether or not the card requested for authorization is a representative card
N
Y
Perform normal card authorization cancellation process(Authorization cancellation process based on card number of the card requested for authorization cancellation)
Identify the card to be subjected to authorization cancellation process (the actually authorized card at the time of authorization) by referring to representative card authorization information matching DB
Perform authorization cancellation process based on the actually authorized card

FIG. 7

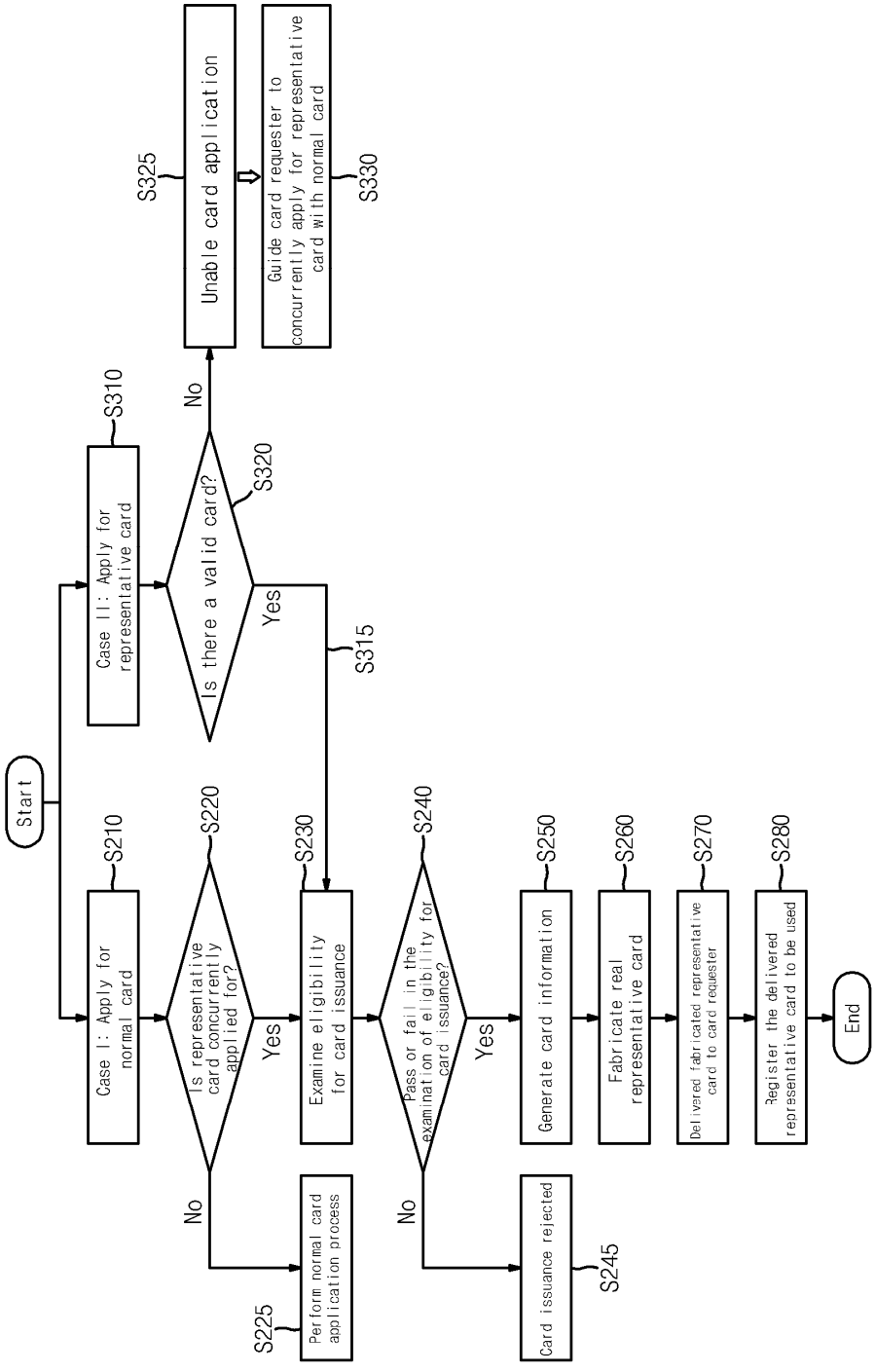
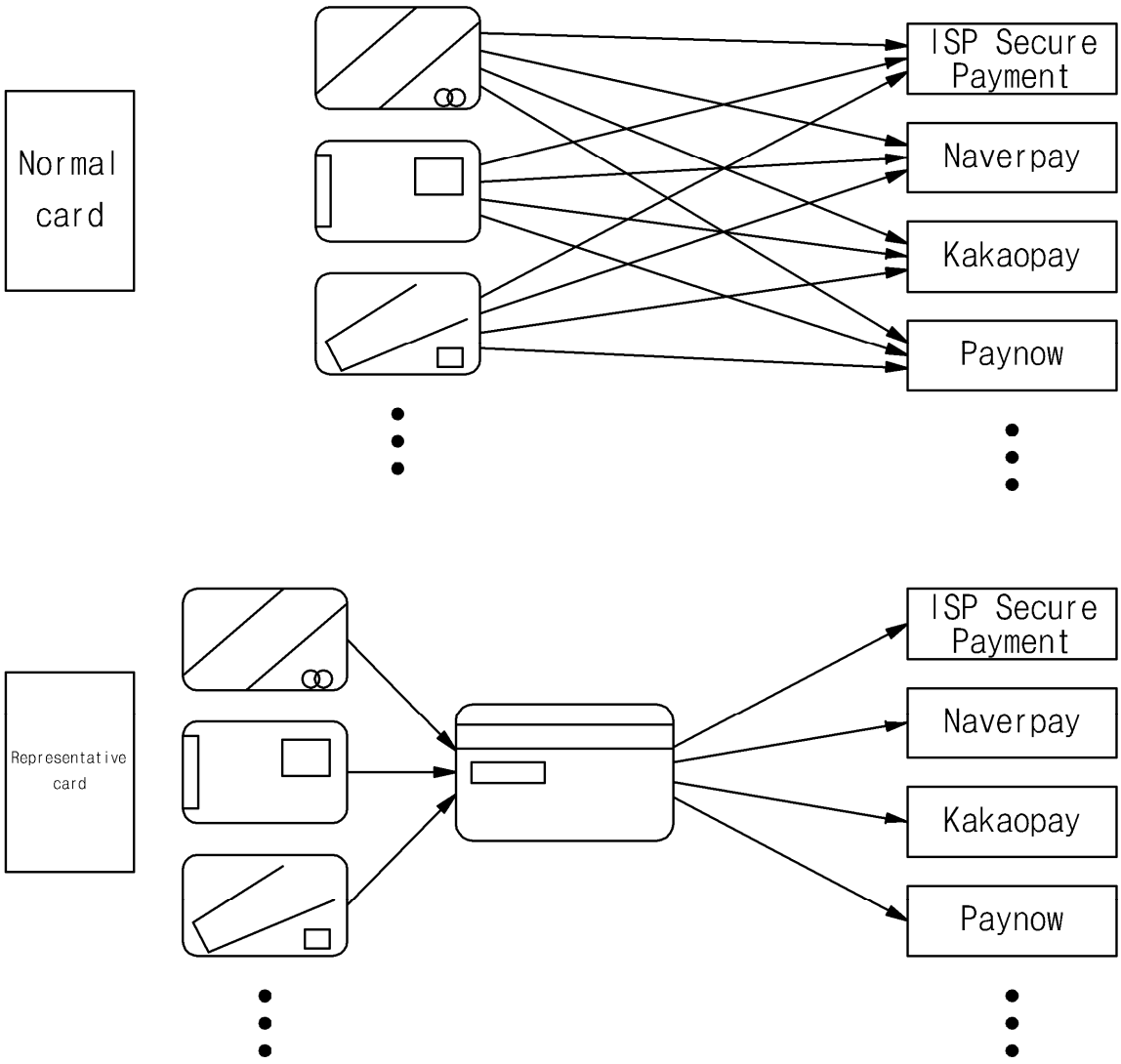

Start
Case I: Apply for normal card
S210
Case II: Apply for represeniative card
S310
Is represeniative card concurrently applied for?
S220
Yes
No
Is there a valid card?
S320
Yes
No
S315
Unable card application
S325
Guide card requester to concurrently apply for represeniative card with normal card
S330
Perform normal card application process
S225
Examine eligibility for card issuance
S230
Pass or fail in the examination of eligibility for card issuance?
S240
Yes
No
Card issuance rejected
S245
Generate card information
S250
Fabricate real representative card
S260
Delivered fabricated representative card to card requester
S270
Register the delivered representative card to be used
S280
End

FIG. 8


Normal card
ISP Secure Payment
Naverpay
Kakaopay
Paynow
Representative card
ISP Secure Payment
Naverpay
Kakaopay
Paynow