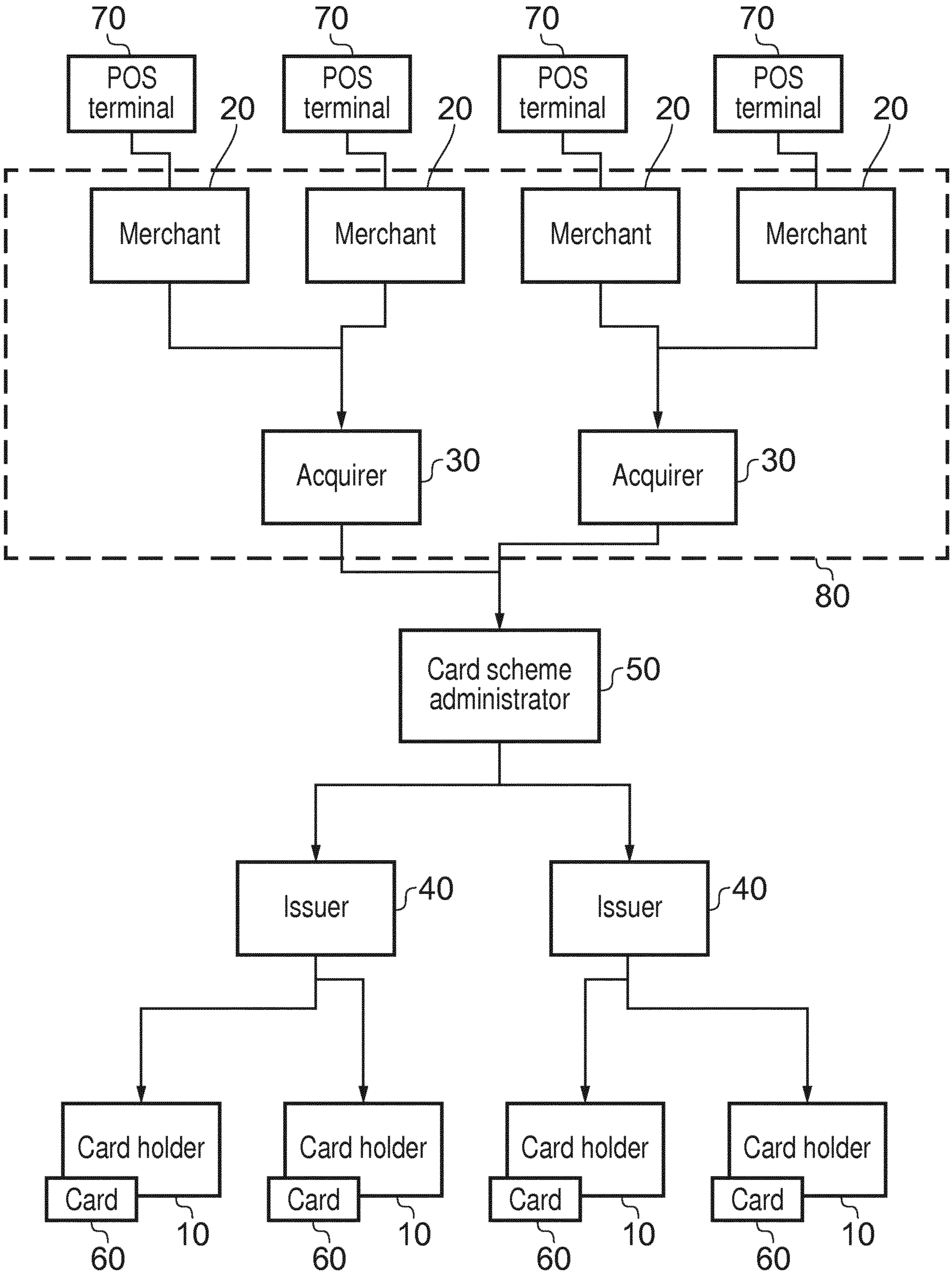

70
POS terminal
20
Merchant
30
Acquirer
80
50
Card scheme administrator
40
Issuer
Card holder
Card
10
60

FIG. 1

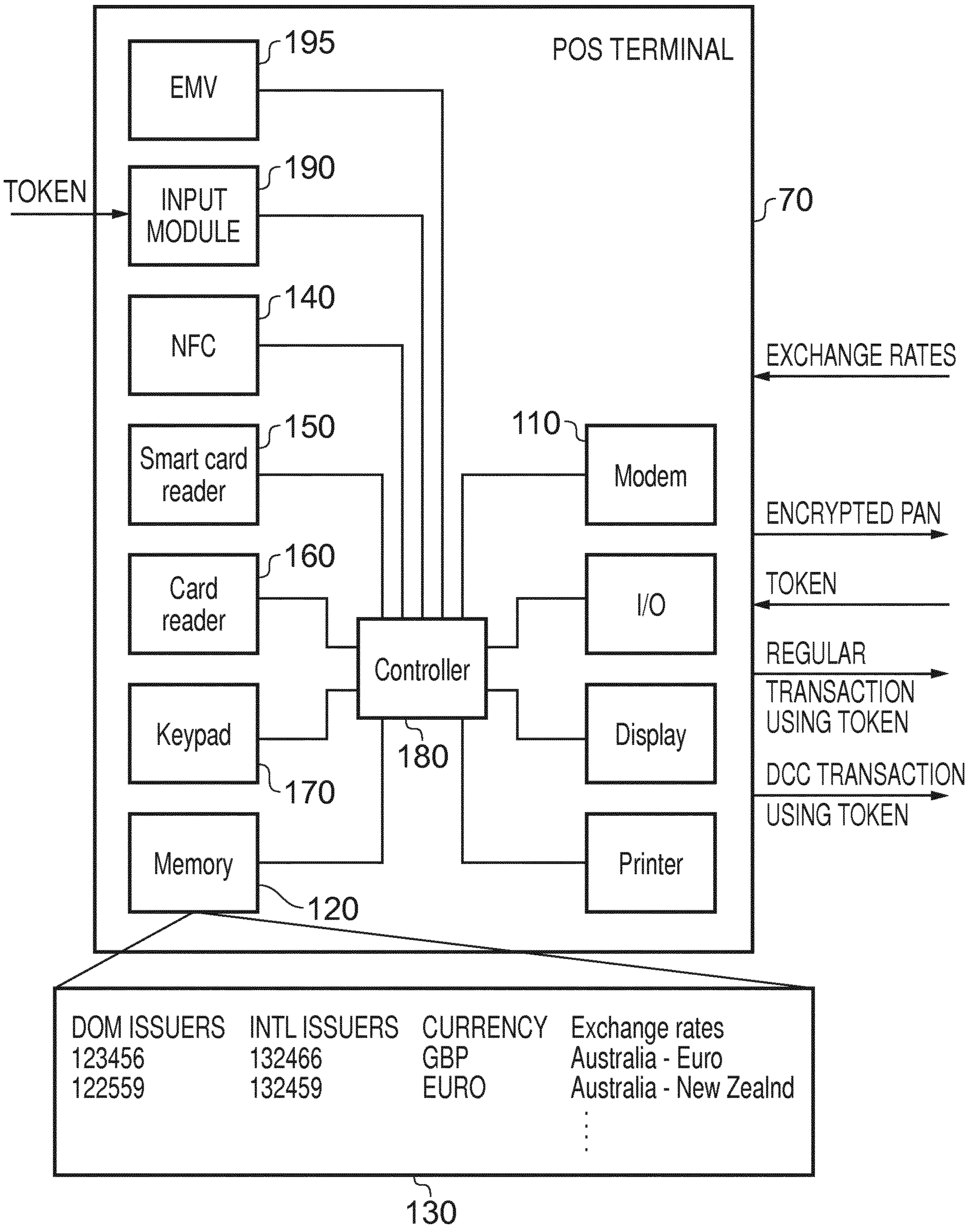

195
EMV
POS TERMINAL
TOKEN
190
INPUT MODULE
140
NFC
150
Smart card reader
160
Card reader
Keypad
170
Memory
120
Controller
180
110
Modem
I/O
Display
Printer
70
EXCHANGE RATES
ENCRYPTED PAN
TOKEN
REGULAR TRANSACTION USING TOKEN
DCC TRANSACTION USING TOKEN
DOM ISSUERS
123456
122559
INTL ISSUERS
132466
132459
CURRENCY
GBP
EURO
Exchange rates
Australia - Euro
Australia - New Zealnd
130

FIG. 2

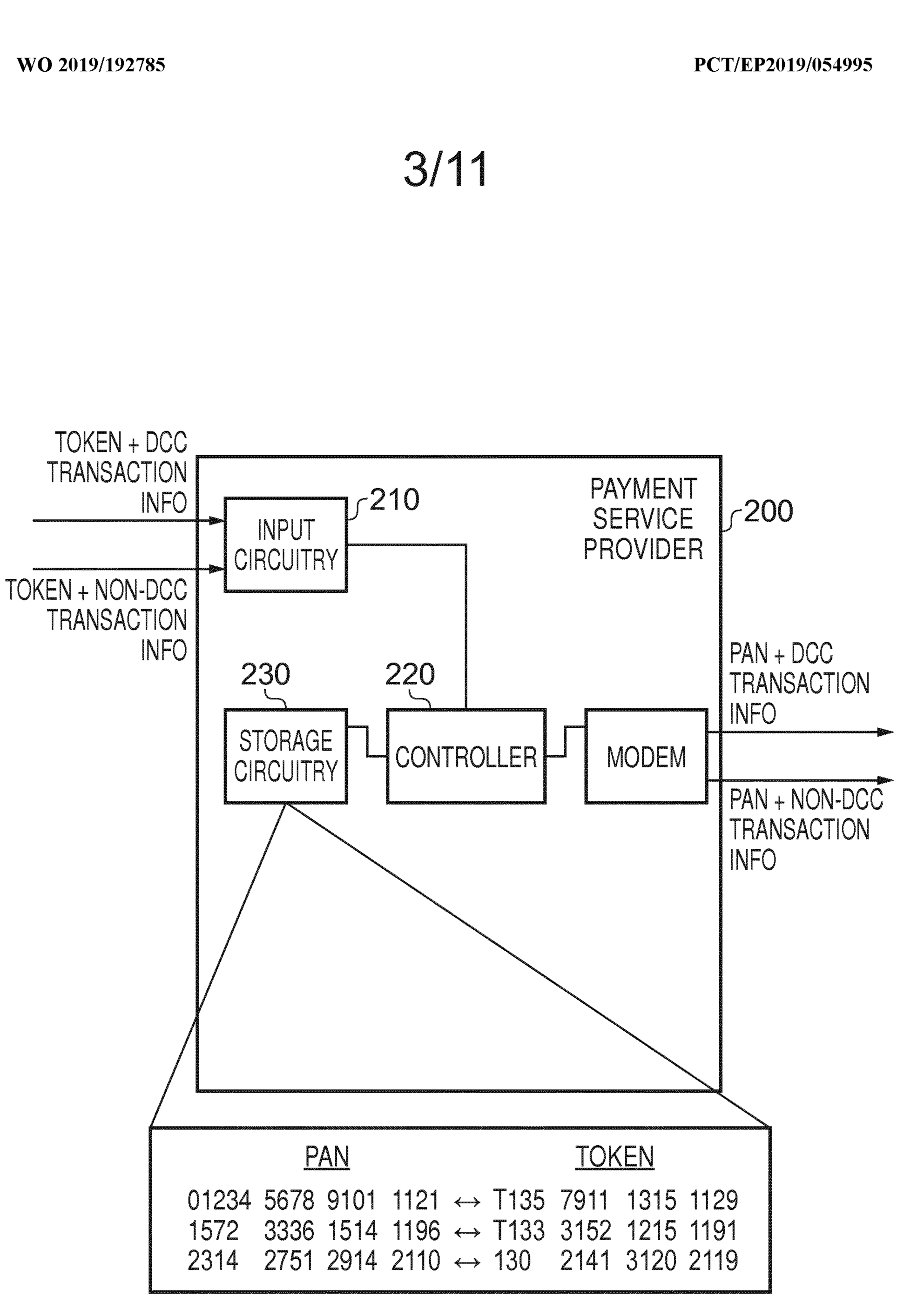

TOKEN + DCC TRANSACTION INFO
TOKEN + NON-DCC TRANSACTION INFO
INPUT CIRCUITRY
210
PAYMENT SERVICE PROVIDER
200
230
220
STORAGE CIRCUITRY
CONTROLLER
MODEM
PAN + DCC TRANSACTION INFO
PAN + NON-DCC TRANSACTION INFO
PAN TOKEN
01234 5678 9101 1121 ↔ T135 7911 1315 1129
1572 3336 1514 1196 ↔ T133 3152 1215 1191
2314 2751 2914 2110 ↔ 130 2141 3120 2119

FIG. 3

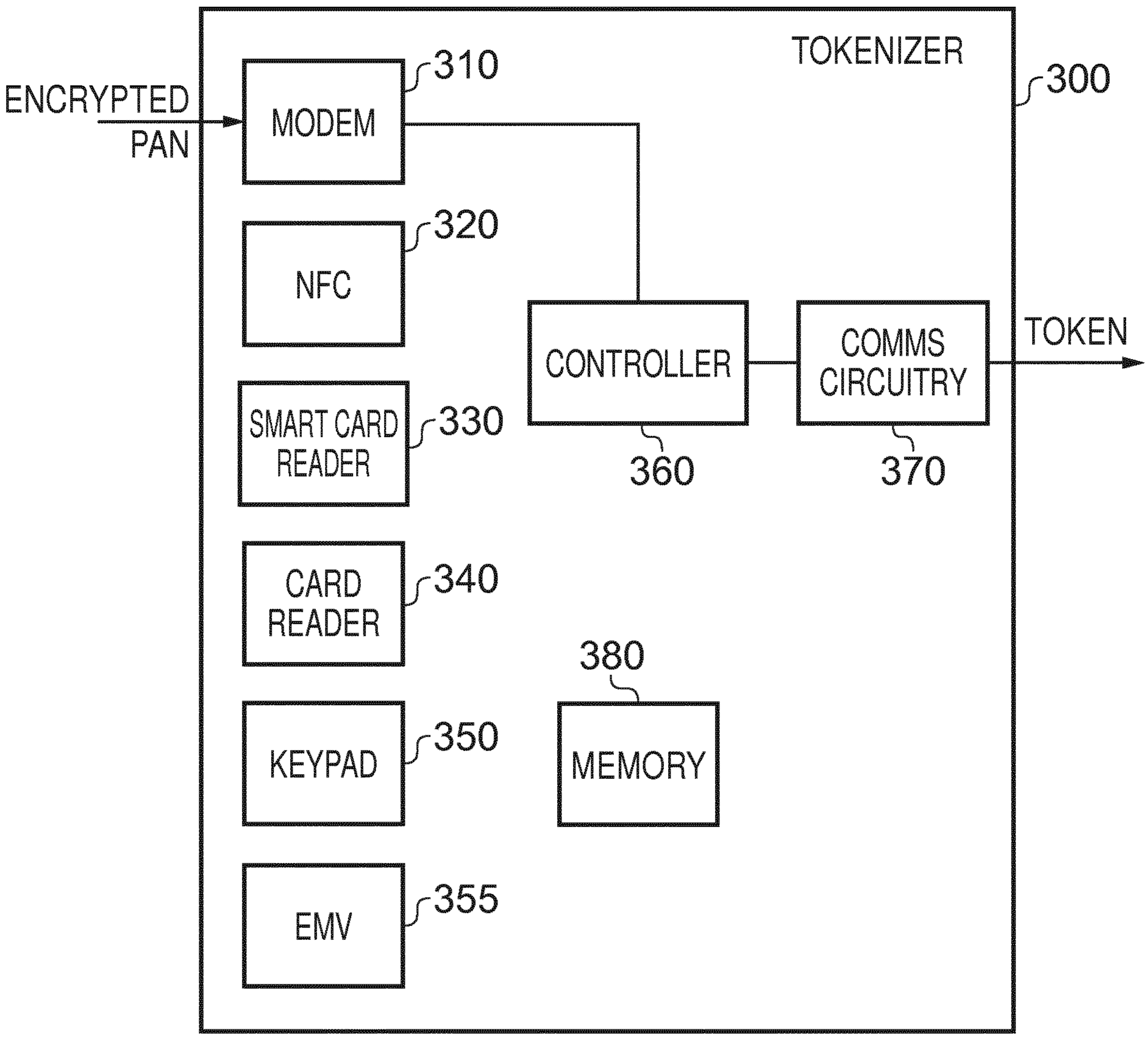

TOKENIZER
300
ENCRYPTED PAN
MODEM
310
NFC
320
SMART CARD READER
330
CONTROLLER
360
COMMS CIRCUITRY
370
TOKEN
CARD READER
340
KEYPAD
350
MEMORY
380
EMV
355

FIG. 4

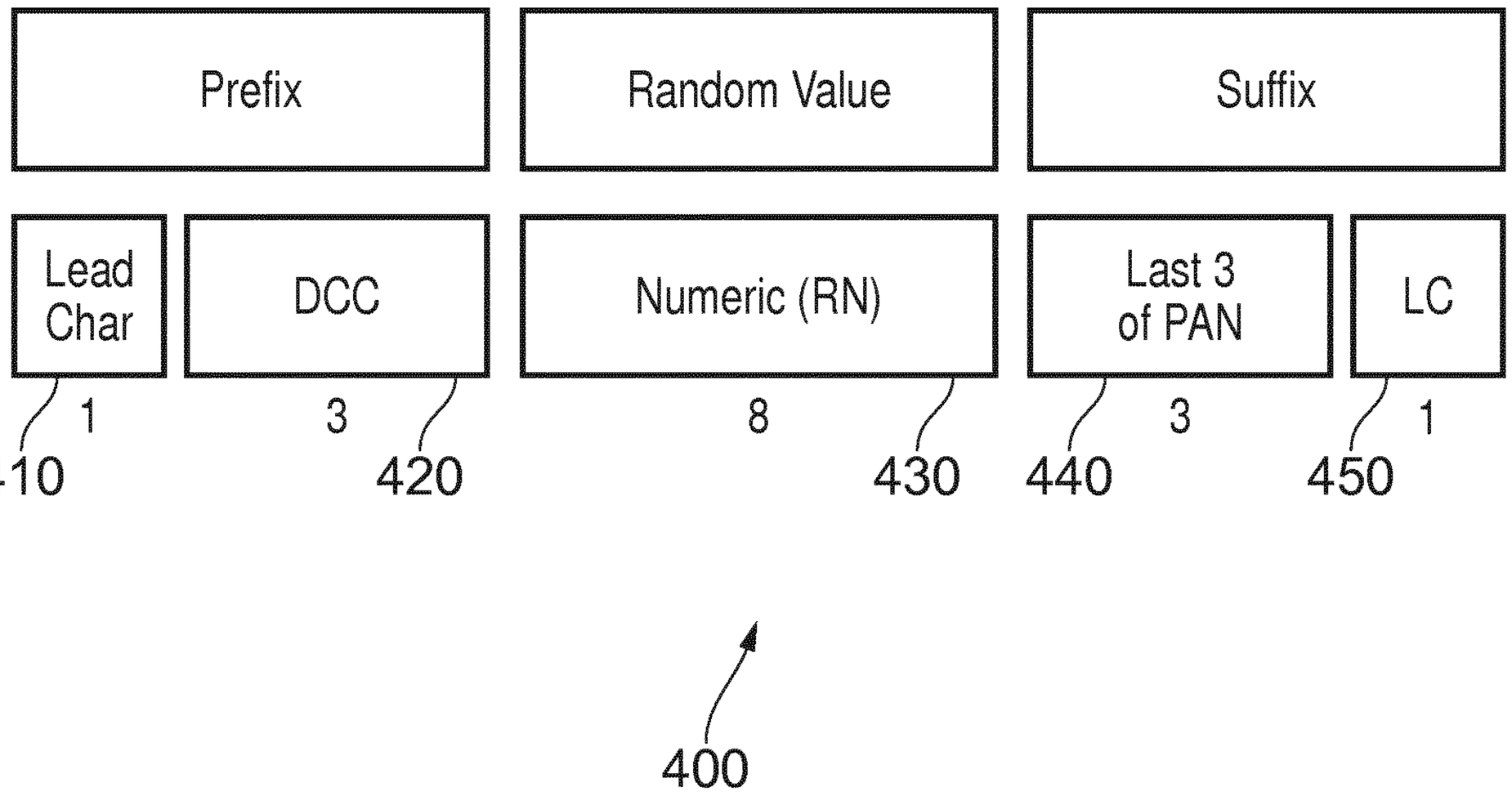

Prefix
Random Value
Suffix
Lead Char
DCC
Numeric (RN)
Last 3 of PAN
LC
1
3
8
3
1
410
420
430
440
450
400

FIG. 5A

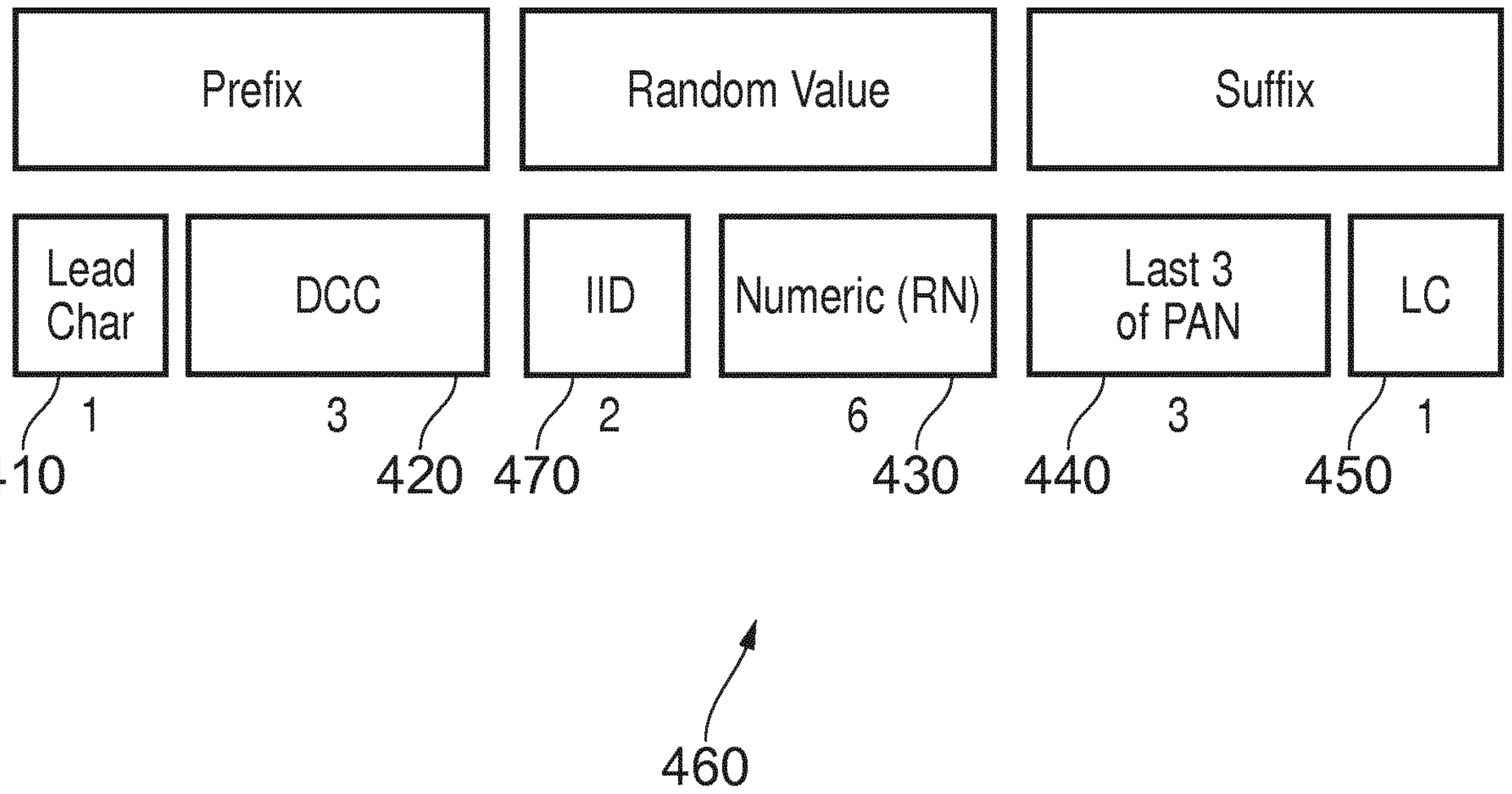

Prefix
Random Value
Suffix
Lead Char
DCC
IID
Numeric (RN)
Last 3 of PAN
LC
1
3
2
6
3
1
410
420
470
430
440
450
460

FIG. 5B

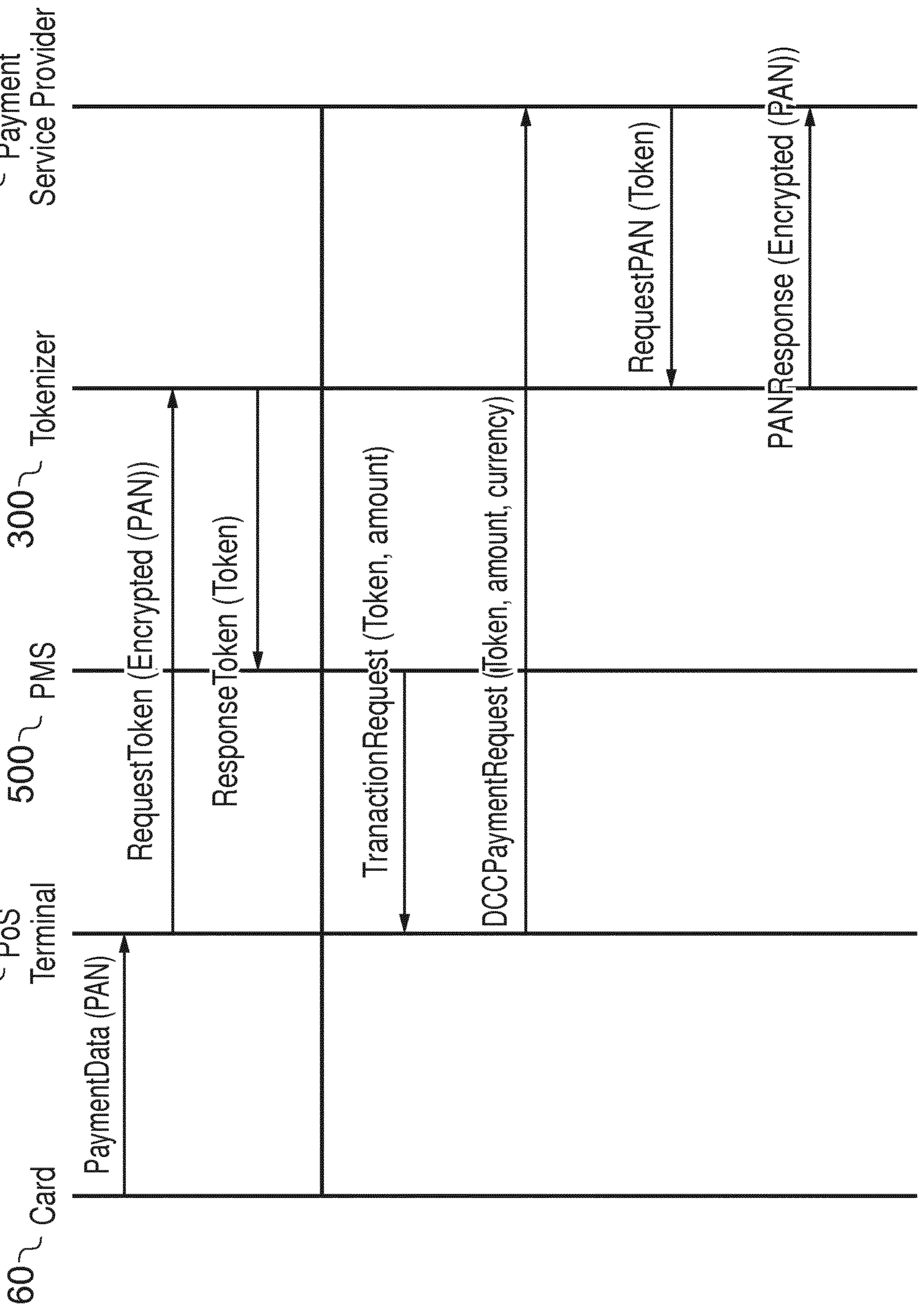

60 Card
70 PoS Terminal
500 PMS
300 Tokenizer
200 Payment Service Provider
PaymentData (PAN)
RequestToken (Encrypted (PAN))
ResponseToken (Token)
TranactionRequest (Token, amount)
DCCPaymentRequest (Token, amount, currency)
RequestPAN (Token)
PANResponse (Encrypted (PAN))

FIG. 6

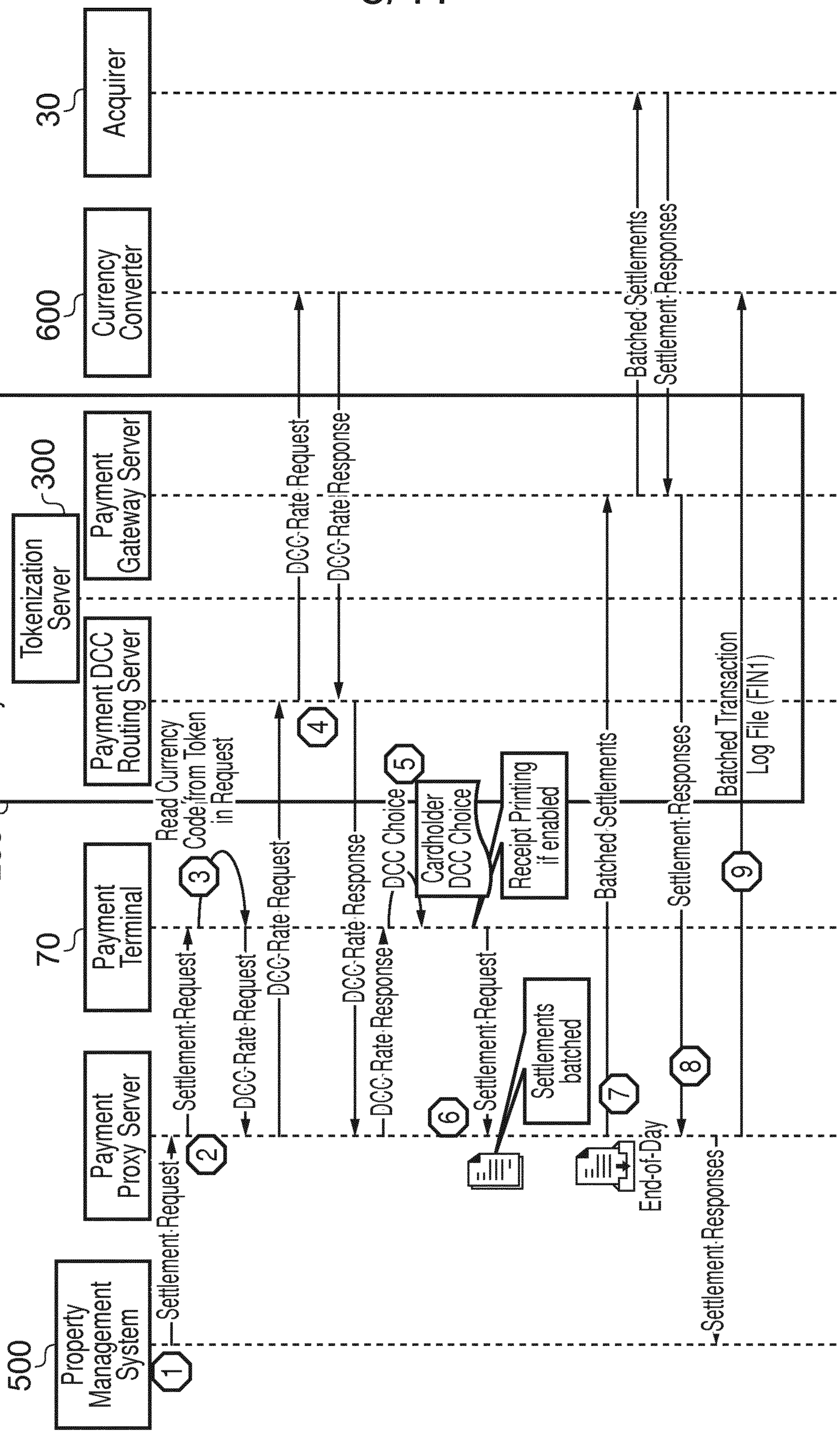

Acquirer
30
Currency Converter
600
Payment Gateway Server
300
Tokenization Server
Payment DCC Routing Server
Payment Service Provider
200
Payment Terminal
70
Payment Proxy Server
Property Management System
500
Settlement Request
DCC Rate Request
DCC Rate Response
Read Currency Code from Token in Request
DCC Choice
Cardholder DCC Choice
Receipt Printing if enabled
Settlements batched
Batched Settlements
Settlement Responses
Batched Transaction Log File (FIN1)
End-of-Day
1
2
3
4
5
6
7
8
9

FIG. 7

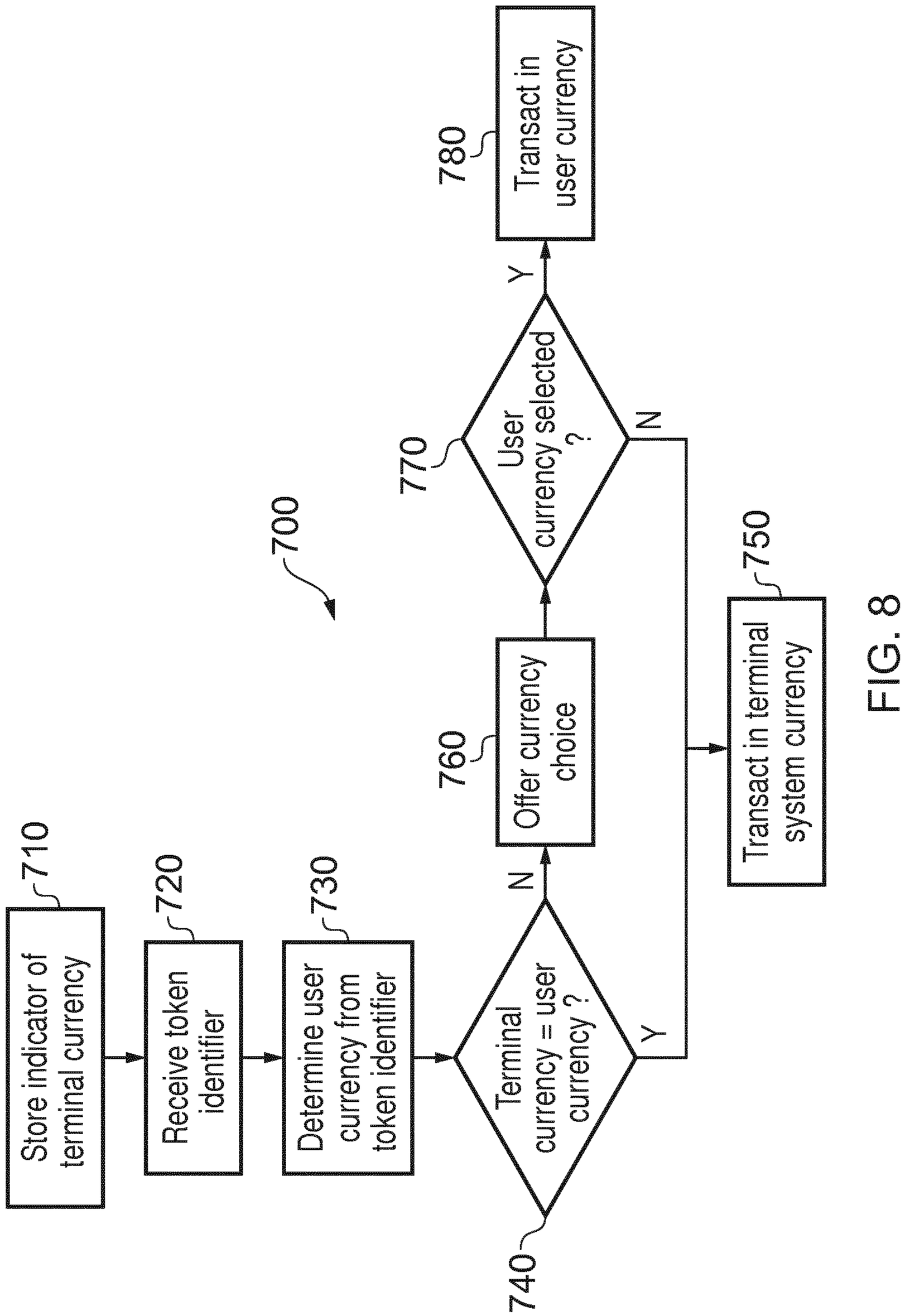

700
710
Store indicator of terminal currency
720
Receive token identifier
730
Determine user currency from token identifier
740
Terminal currency = user currency ?
Y
N
750
Transact in terminal system currency
760
Offer currency choice
770
User currency selected ?
Y
N
780
Transact in user currency

FIG. 8

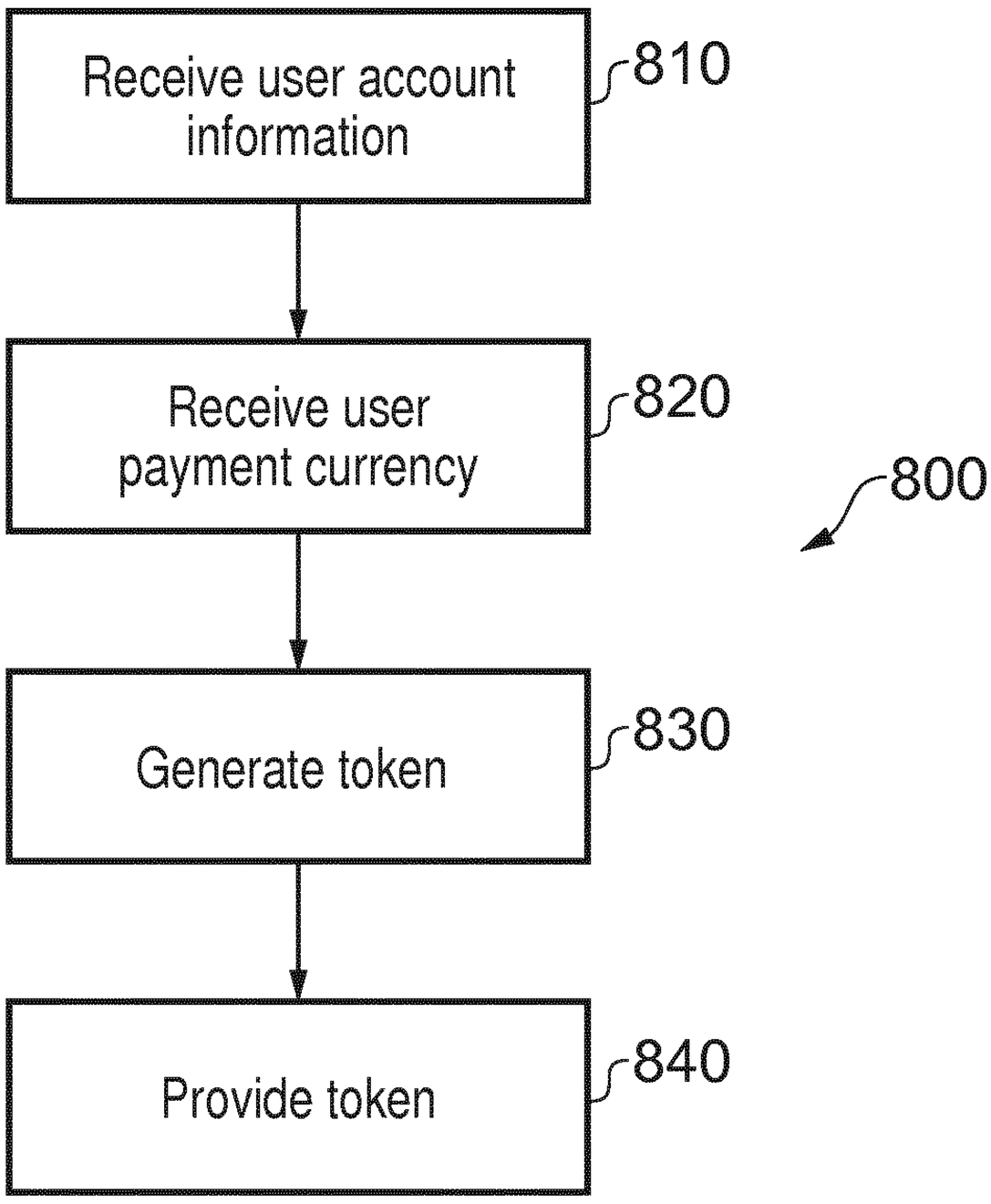

Receive user account information
810
Receive user payment currency
820
800
Generate token
830
Provide token
840

FIG. 9

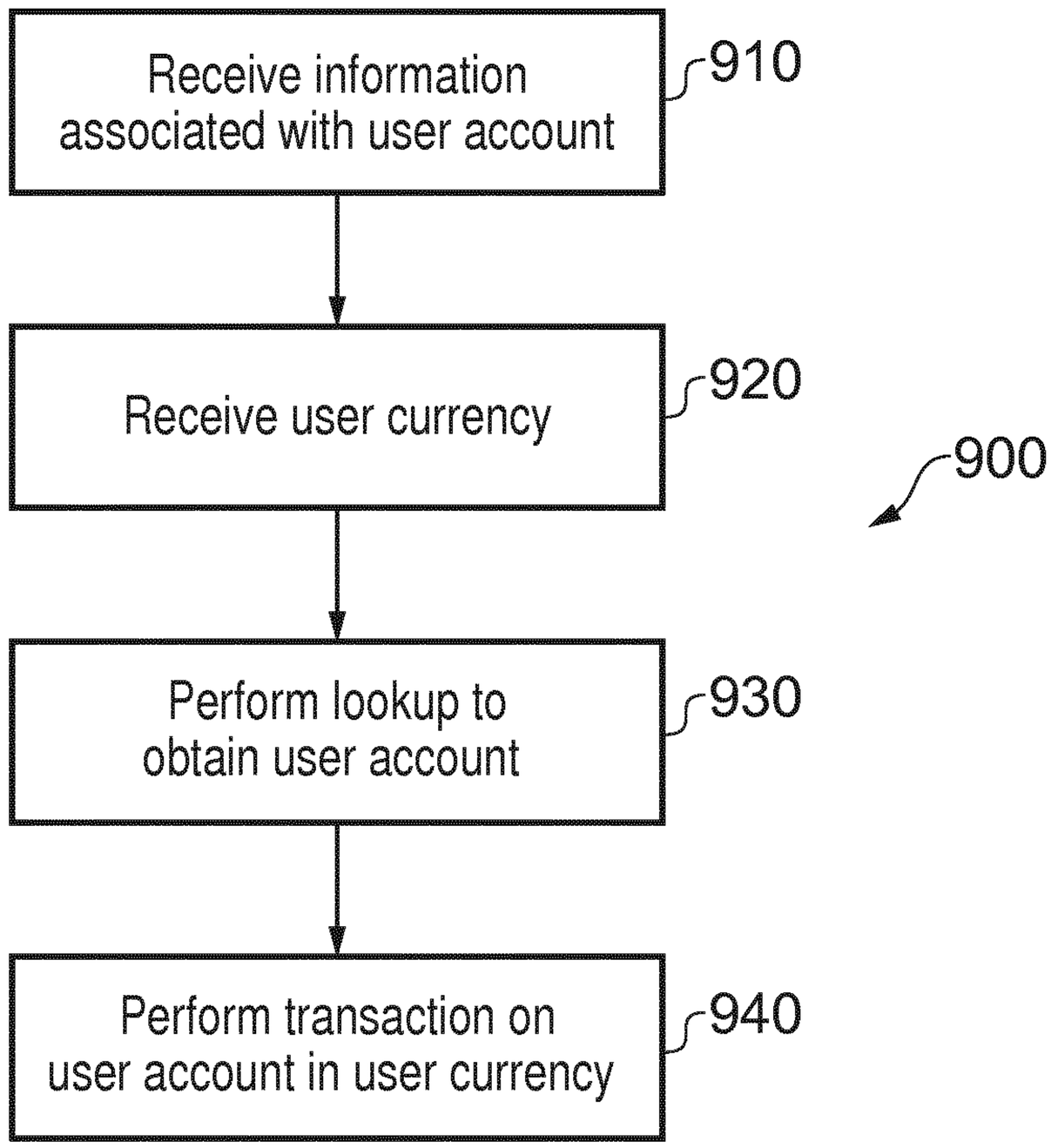

Receive information associated with user account
910
Receive user currency
920
900
Perform lookup to obtain user account
930
Perform transaction on user account in user currency
940

FIG. 10