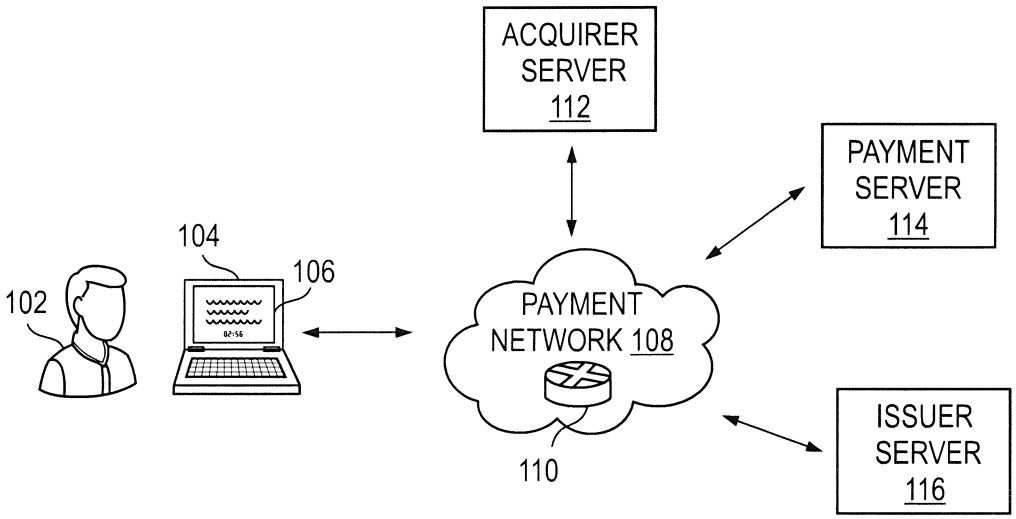

ACQUIRER SERVER 112
PAYMENT SERVER 114
104
106
102
PAYMENT NETWORK 108
110
ISSUER SERVER 116
100

FIG. 1

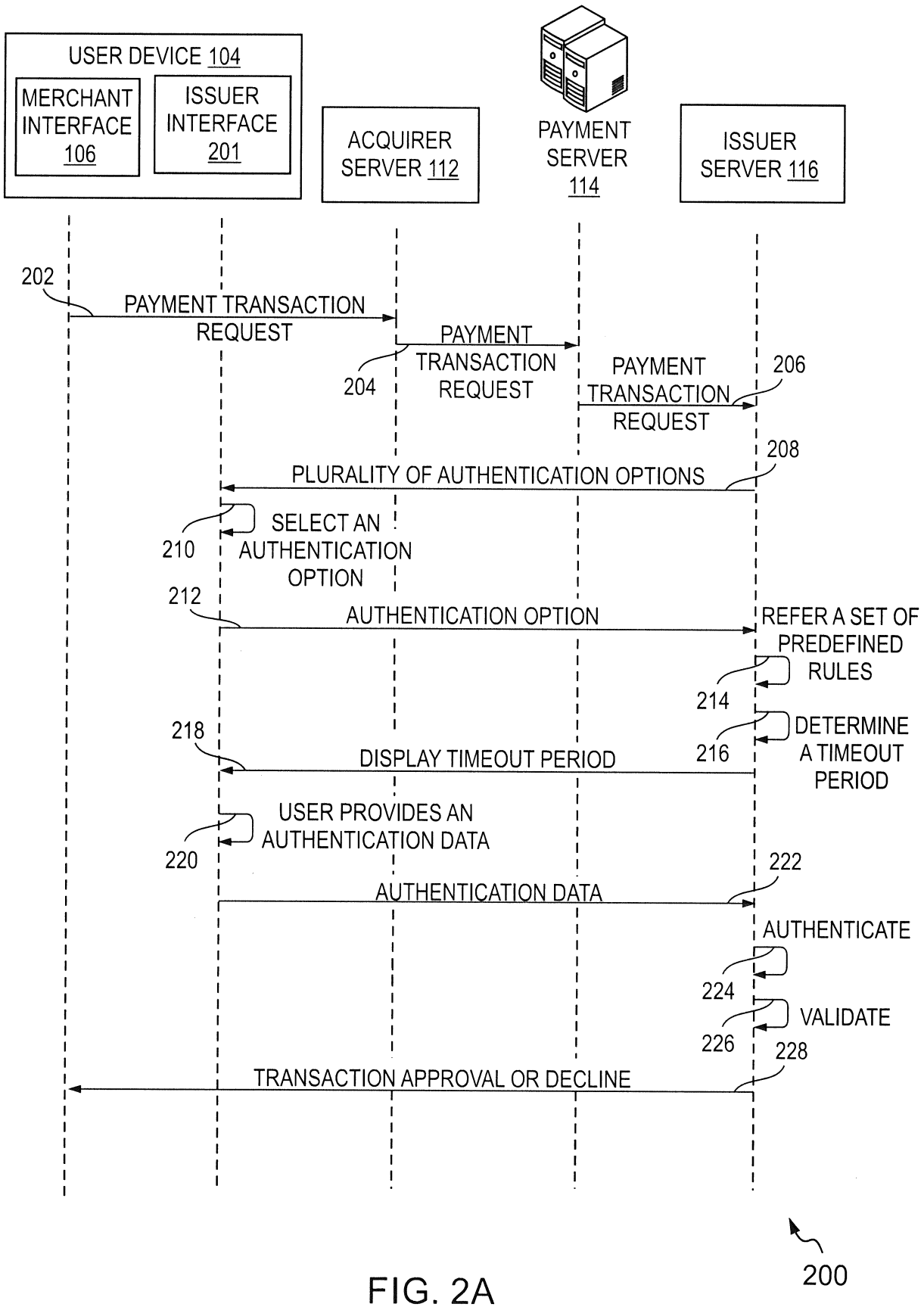

USER DEVICE 104
MERCHANT INTERFACE 106
ISSUER INTERFACE 201
ACQUIRER SERVER 112
PAYMENT SERVER 114
ISSUER SERVER 116
202
PAYMENT TRANSACTION REQUEST
204
PAYMENT TRANSACTION REQUEST
PAYMENT TRANSACTION REQUEST
206
208
PLURALITY OF AUTHENTICATION OPTIONS
210
SELECT AN AUTHENTICATION OPTION
212
AUTHENTICATION OPTION
REFER A SET OF PREDEFINED RULES
214
216
DETERMINE A TIMEOUT PERIOD
218
DISPLAY TIMEOUT PERIOD
220
USER PROVIDES AN AUTHENTICATION DATA
222
AUTHENTICATION DATA
AUTHENTICATE
224
226
VALIDATE
228
TRANSACTION APPROVAL OR DECLINE
200

FIG. 2A

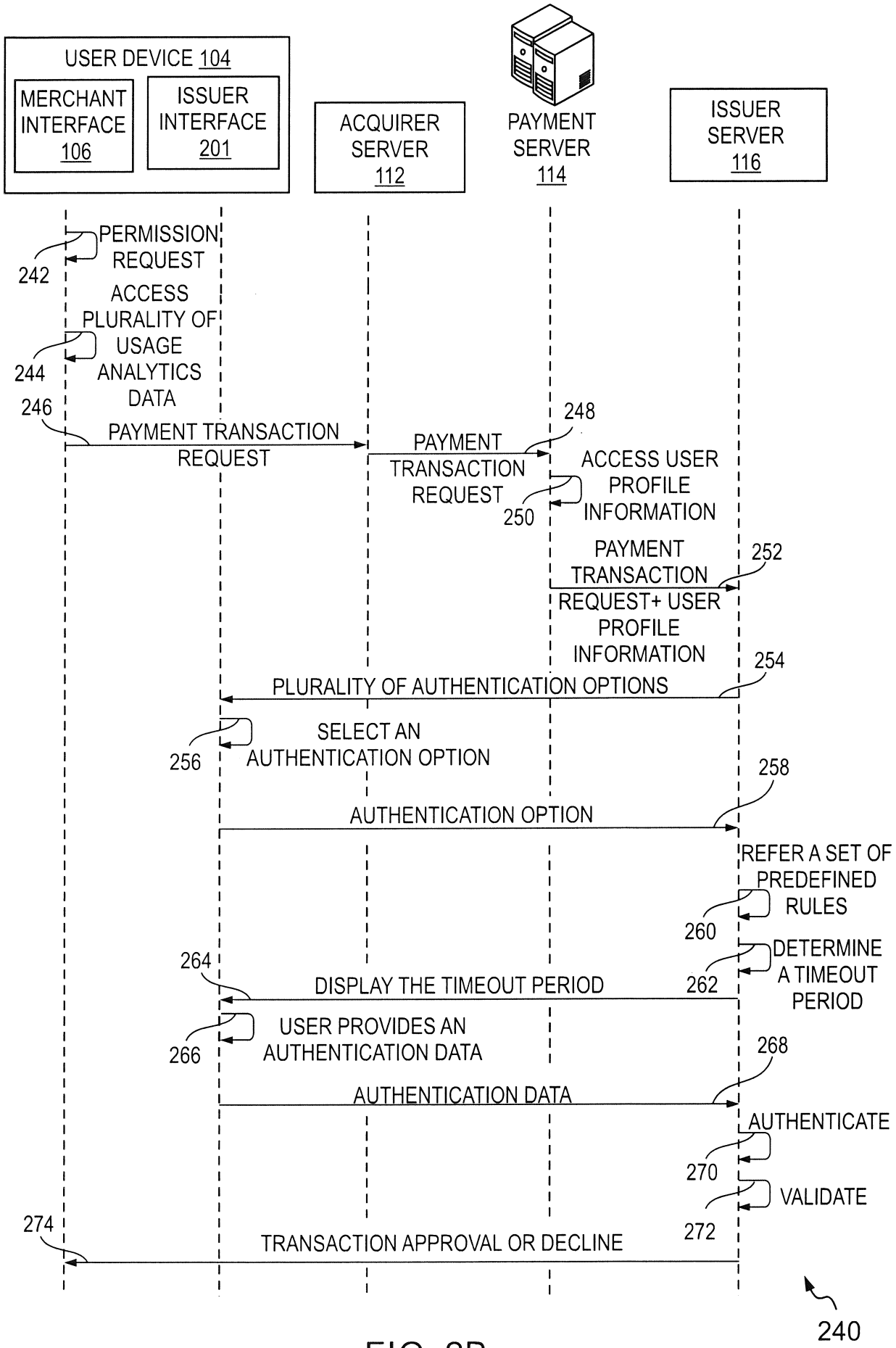

USER DEVICE 104
MERCHANT INTERFACE 106
ISSUER INTERFACE 201
ACQUIRER SERVER 112
PAYMENT SERVER 114
ISSUER SERVER 116
PERMISSION REQUEST
242
ACCESS PLURALITY OF USAGE ANALYTICS DATA
244
246
PAYMENT TRANSACTION REQUEST
PAYMENT TRANSACTION REQUEST
248
ACCESS USER PROFILE INFORMATION
250
PAYMENT TRANSACTION REQUEST+ USER PROFILE INFORMATION
252
PLURALITY OF AUTHENTICATION OPTIONS
254
SELECT AN AUTHENTICATION OPTION
256
AUTHENTICATION OPTION
258
REFER A SET OF PREDEFINED RULES
260
DETERMINE A TIMEOUT PERIOD
262
DISPLAY THE TIMEOUT PERIOD
264
USER PROVIDES AN AUTHENTICATION DATA
266
AUTHENTICATION DATA
268
AUTHENTICATE
270
VALIDATE
272
TRANSACTION APPROVAL OR DECLINE
274
240

FIG. 2B

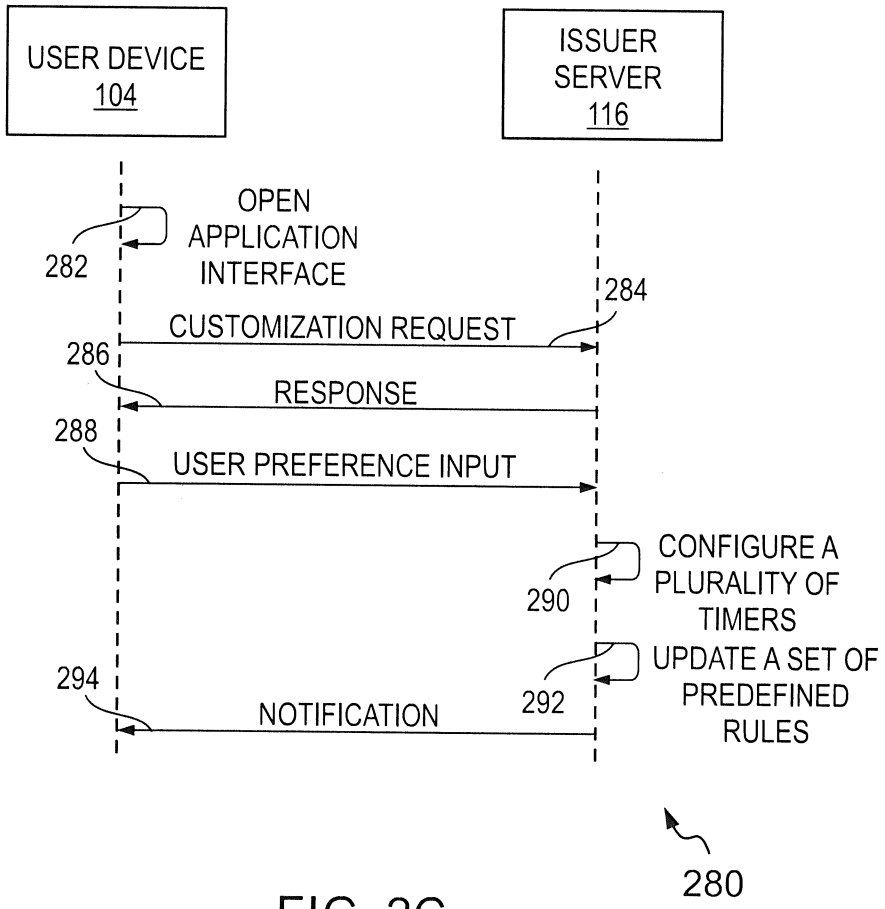

USER DEVICE
104
ISSUER
SERVER
116
OPEN
APPLICATION
INTERFACE
282
284
CUSTOMIZATION REQUEST
286
RESPONSE
288
USER PREFERENCE INPUT
CONFIGURE A
PLURALITY OF
TIMERS
290
UPDATE A SET OF
PREDEFINED
RULES
292
294
NOTIFICATION
280

FIG. 2C

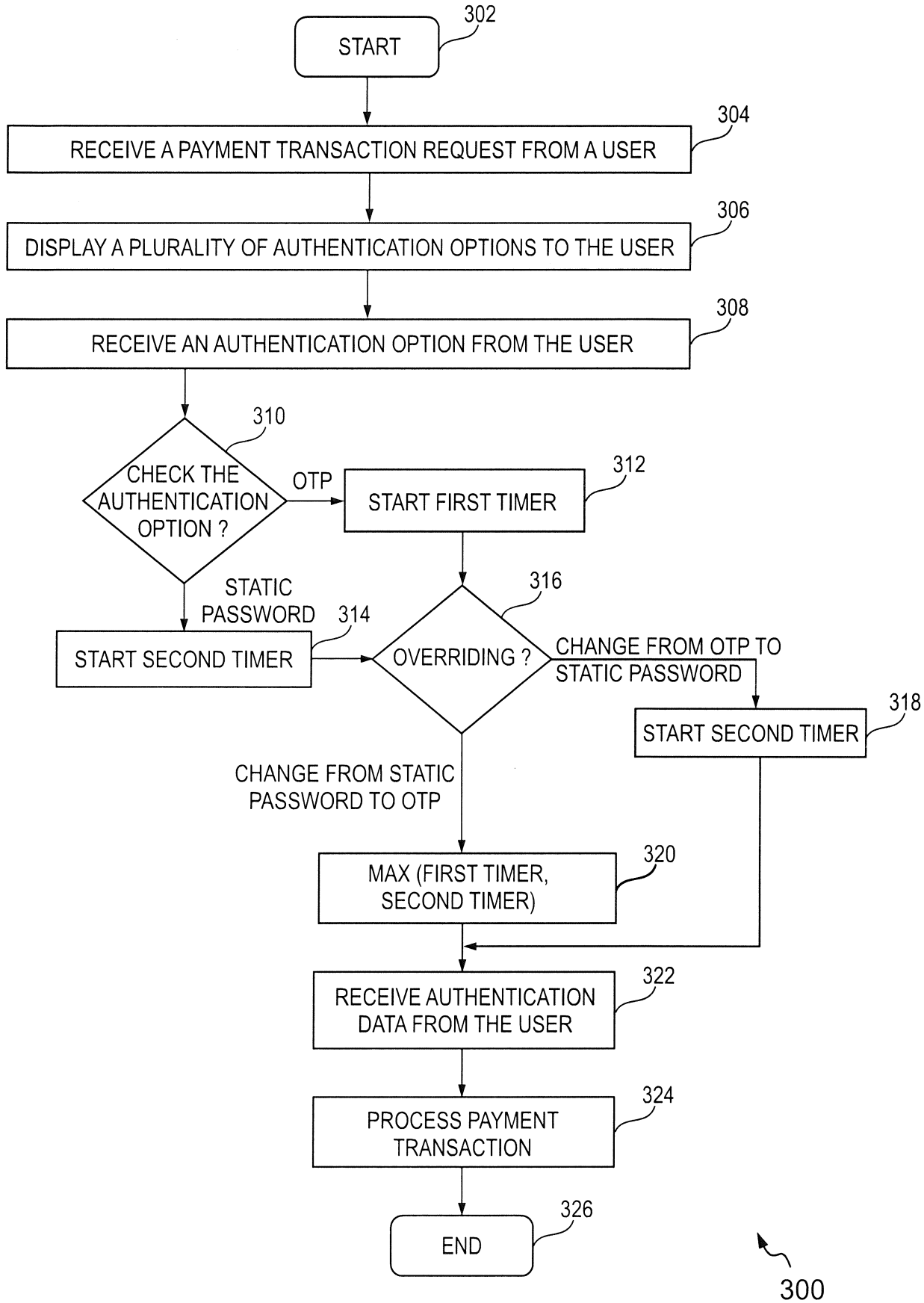

START
302
RECEIVE A PAYMENT TRANSACTION REQUEST FROM A USER
304
DISPLAY A PLURALITY OF AUTHENTICATION OPTIONS TO THE USER
306
RECEIVE AN AUTHENTICATION OPTION FROM THE USER
308
CHECK THE AUTHENTICATION OPTION ?
310
OTP
START FIRST TIMER
312
STATIC PASSWORD
START SECOND TIMER
314
OVERRIDING ?
316
CHANGE FROM OTP TO STATIC PASSWORD
START SECOND TIMER
318
CHANGE FROM STATIC PASSWORD TO OTP
MAX (FIRST TIMER, SECOND TIMER)
320
RECEIVE AUTHENTICATION DATA FROM THE USER
322
PROCESS PAYMENT TRANSACTION
324
END
326
300

FIG. 3

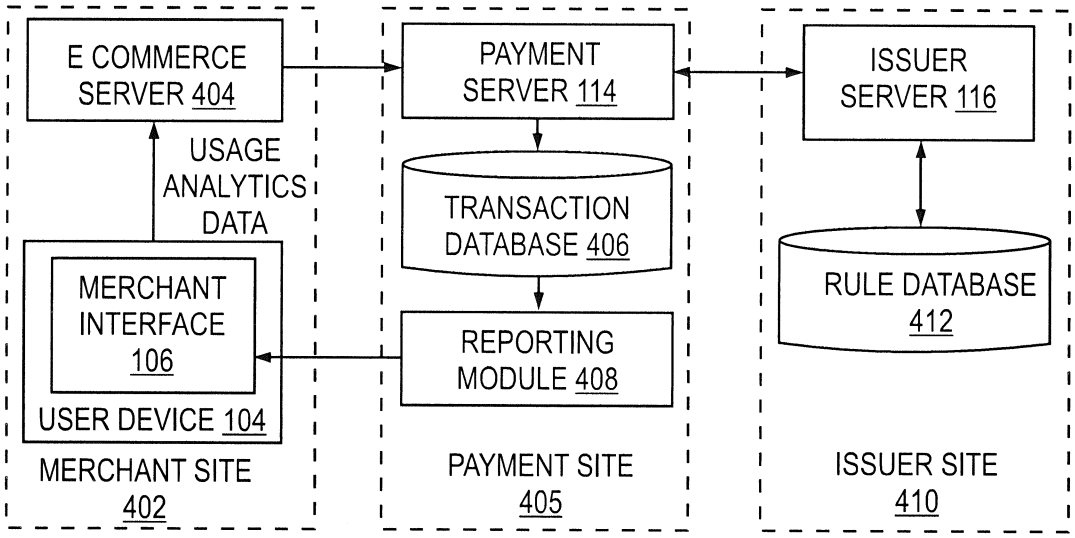


FIG. 4

USER NAME 502	AUTHENTICATION OPTION 504	AUTHENTICATION TIME FOR LAST FIVE TRANSACTIONS (MIN : SEC) 506	AVERAGE AUTHENTICATION TIME 508
JOHN LEWIS (510)	OTP	02 : 30	02 : 33
		02 : 35	
		02 : 20	
		02 : 39	
		02 : 40	
	STATIC PASSWORD	01 : 05	00 : 48
		00 : 59	
		00 : 45	
		00 : 46	
		00 : 48	
⋮	⋮	⋮	⋮

500

FIG. 5

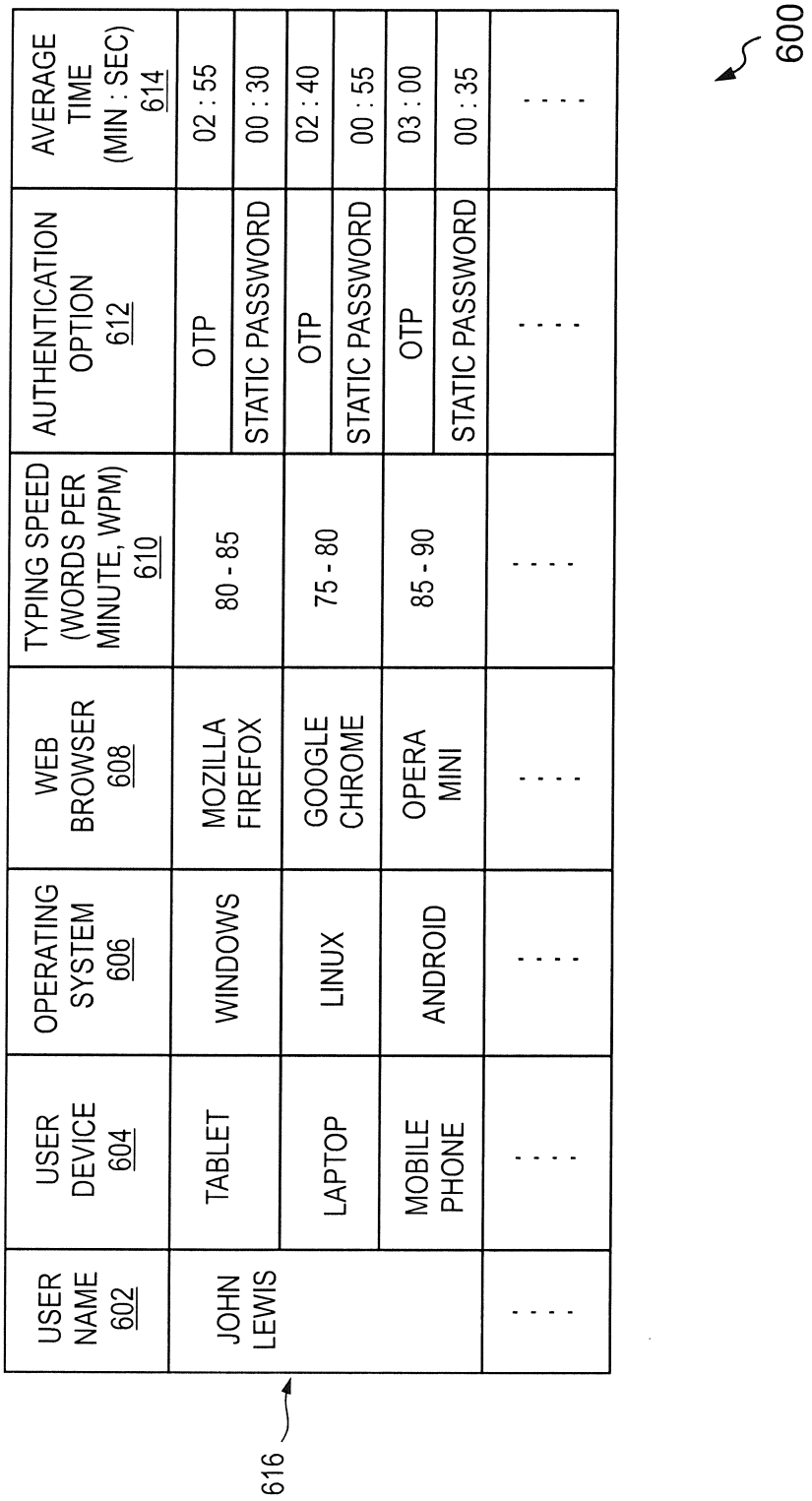

600
616
USER NAME 602
USER DEVICE 604
OPERATING SYSTEM 606
WEB BROWSER 608
TYPING SPEED (WORDS PER MINUTE, WPM) 610
AUTHENTICATION OPTION 612
AVERAGE TIME (MIN : SEC) 614
JOHN LEWIS
TABLET
WINDOWS
MOZILLA FIREFOX
80 - 85
OTP
02 : 55
STATIC PASSWORD
00 : 30
LAPTOP
LINUX
GOOGLE CHROME
75 - 80
OTP
02 : 40
STATIC PASSWORD
00 : 55
MOBILE PHONE
ANDROID
OPERA MINI
85 - 90
OTP
03 : 00
STATIC PASSWORD
00 : 35

FIG. 6

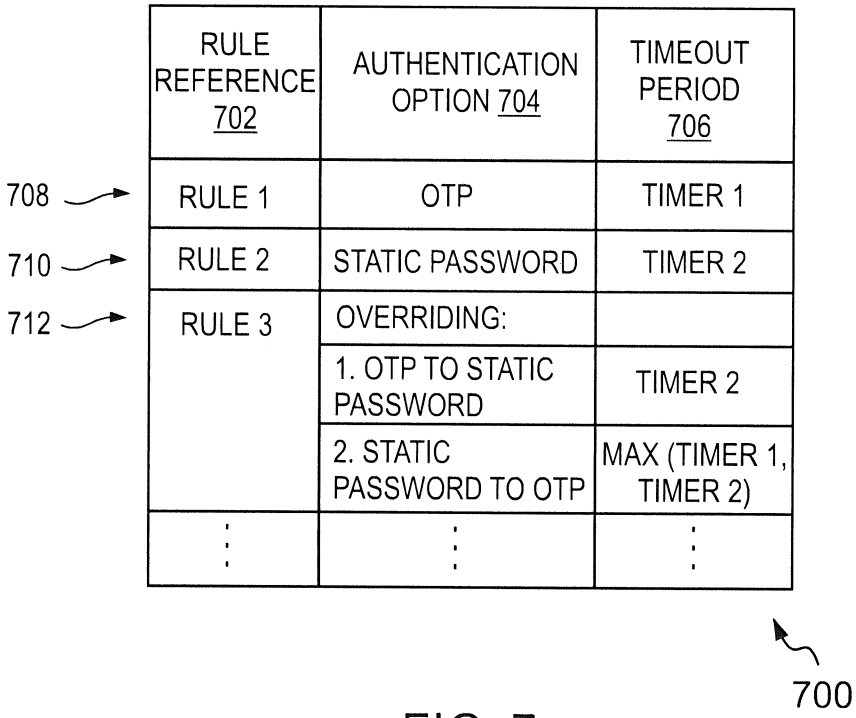

RULE REFERENCE 702
AUTHENTICATION OPTION 704
TIMEOUT PERIOD 706
708
RULE 1
OTP
TIMER 1
710
RULE 2
STATIC PASSWORD
TIMER 2
712
RULE 3
OVERRIDING:
1. OTP TO STATIC PASSWORD
TIMER 2
2. STATIC PASSWORD TO OTP
MAX (TIMER 1, TIMER 2)
700

FIG. 7

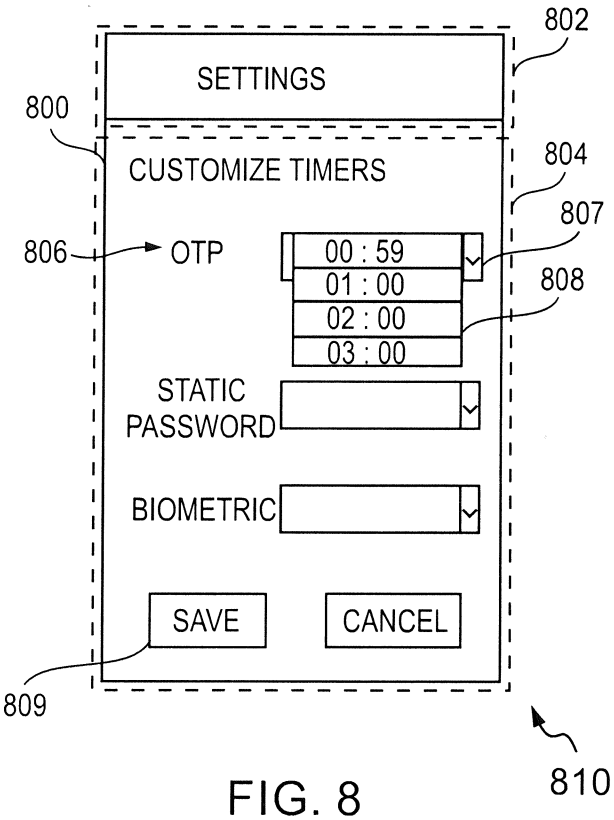

802
SETTINGS
800
CUSTOMIZE TIMERS
804
807
806
OTP
00 : 59
01 : 00
02 : 00
03 : 00
808
STATIC PASSWORD
BIOMETRIC
SAVE
CANCEL
809
810

FIG. 8

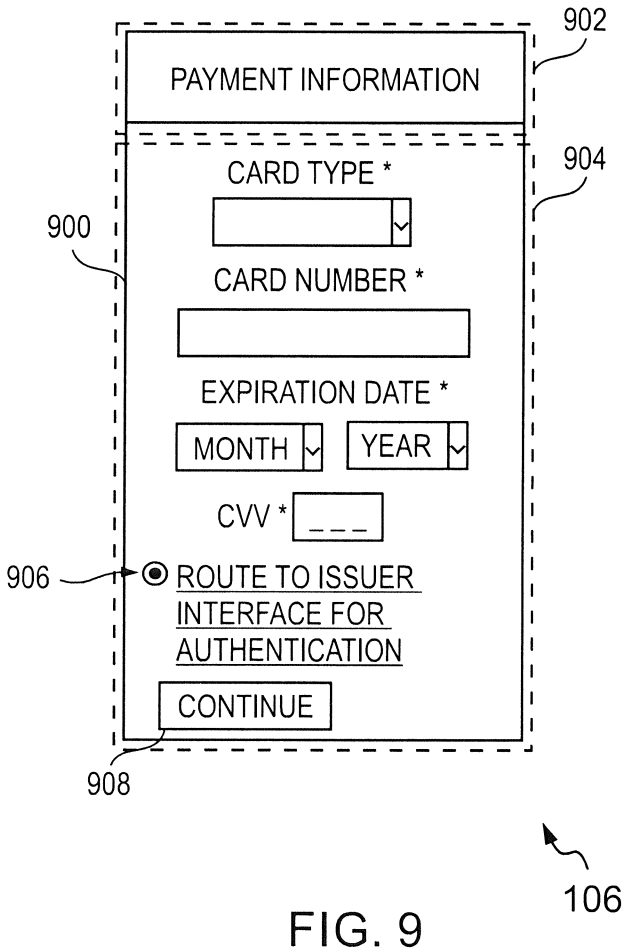

902
PAYMENT INFORMATION
904
CARD TYPE *
900
CARD NUMBER *
EXPIRATION DATE *
MONTH
YEAR
CVV * _ _ _
906
ROUTE TO ISSUER INTERFACE FOR AUTHENTICATION
CONTINUE
908
106

FIG. 9

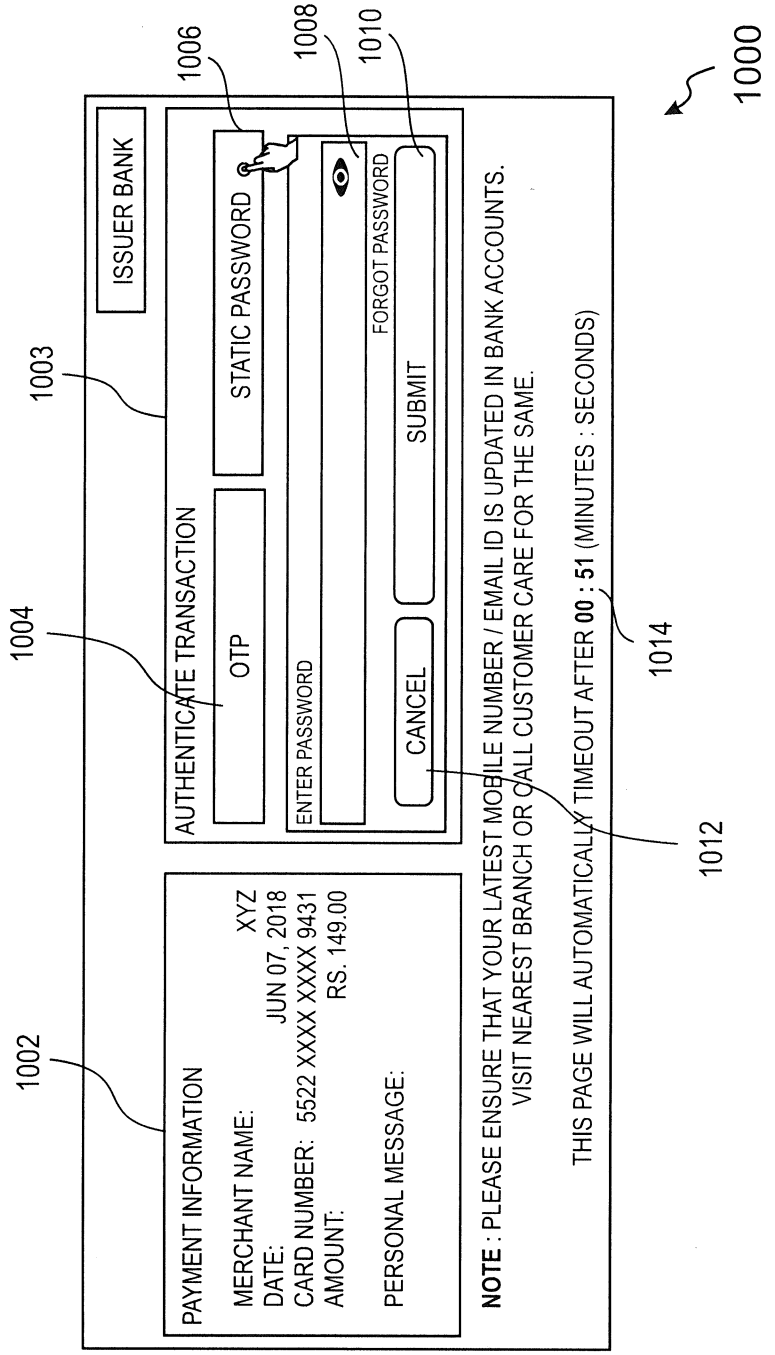

1000
1002
1003
1004
1006
1008
1010
1012
1014
ISSUER BANK
PAYMENT INFORMATION
MERCHANT NAME: XYZ
DATE: JUN 07, 2018
CARD NUMBER: 5522 XXXX XXXX 9431
AMOUNT: RS. 149.00
PERSONAL MESSAGE:
AUTHENTICATE TRANSACTION
OTP
STATIC PASSWORD
ENTER PASSWORD
FORGOT PASSWORD
CANCEL
SUBMIT
NOTE : PLEASE ENSURE THAT YOUR LATEST MOBILE NUMBER / EMAIL ID IS UPDATED IN BANK ACCOUNTS.
VISIT NEAREST BRANCH OR CALL CUSTOMER CARE FOR THE SAME.
THIS PAGE WILL AUTOMATICALLY TIMEOUT AFTER 00 : 51 (MINUTES : SECONDS)

FIG. 10A

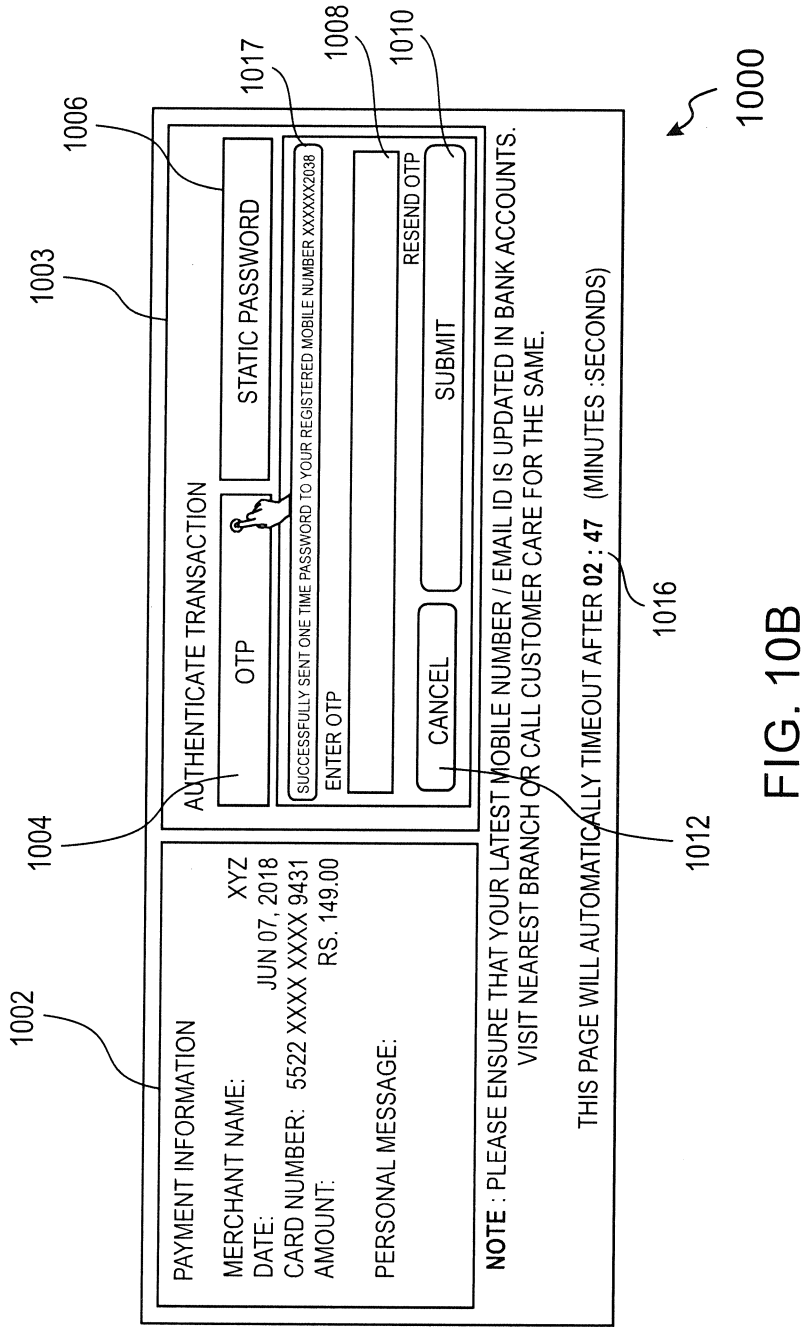

1000
1002
1003
1004
1006
1008
1010
1012
1016
1017
PAYMENT INFORMATION
MERCHANT NAME: XYZ
DATE: JUN 07, 2018
CARD NUMBER: 5522 XXXX XXXX 9431
AMOUNT: RS. 149.00
PERSONAL MESSAGE:
AUTHENTICATE TRANSACTION
OTP
STATIC PASSWORD
SUCCESSFULLY SENT ONE TIME PASSWORD TO YOUR REGISTERED MOBILE NUMBER XXXXXX2038
ENTER OTP
RESEND OTP
CANCEL
SUBMIT
NOTE : PLEASE ENSURE THAT YOUR LATEST MOBILE NUMBER / EMAIL ID IS UPDATED IN BANK ACCOUNTS.
VISIT NEAREST BRANCH OR CALL CUSTOMER CARE FOR THE SAME.
THIS PAGE WILL AUTOMATICALLY TIMEOUT AFTER 02 : 47 (MINUTES :SECONDS)

FIG. 10B

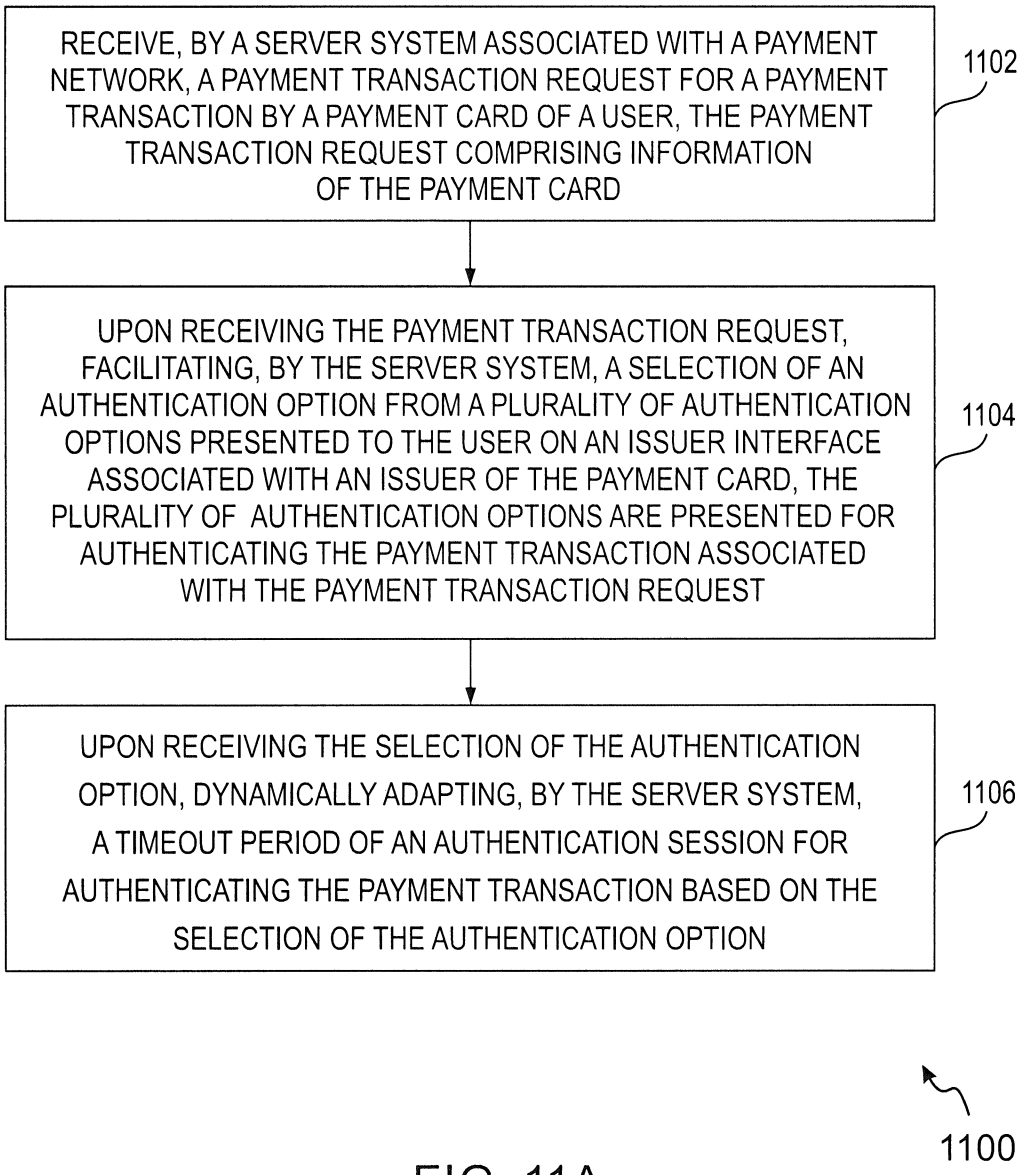

RECEIVE, BY A SERVER SYSTEM ASSOCIATED WITH A PAYMENT NETWORK, A PAYMENT TRANSACTION REQUEST FOR A PAYMENT TRANSACTION BY A PAYMENT CARD OF A USER, THE PAYMENT TRANSACTION REQUEST COMPRISING INFORMATION OF THE PAYMENT CARD
1102
UPON RECEIVING THE PAYMENT TRANSACTION REQUEST, FACILITATING, BY THE SERVER SYSTEM, A SELECTION OF AN AUTHENTICATION OPTION FROM A PLURALITY OF AUTHENTICATION OPTIONS PRESENTED TO THE USER ON AN ISSUER INTERFACE ASSOCIATED WITH AN ISSUER OF THE PAYMENT CARD, THE PLURALITY OF AUTHENTICATION OPTIONS ARE PRESENTED FOR AUTHENTICATING THE PAYMENT TRANSACTION ASSOCIATED WITH THE PAYMENT TRANSACTION REQUEST
1104
UPON RECEIVING THE SELECTION OF THE AUTHENTICATION OPTION, DYNAMICALLY ADAPTING, BY THE SERVER SYSTEM, A TIMEOUT PERIOD OF AN AUTHENTICATION SESSION FOR AUTHENTICATING THE PAYMENT TRANSACTION BASED ON THE SELECTION OF THE AUTHENTICATION OPTION
1106
1100

FIG. 11A

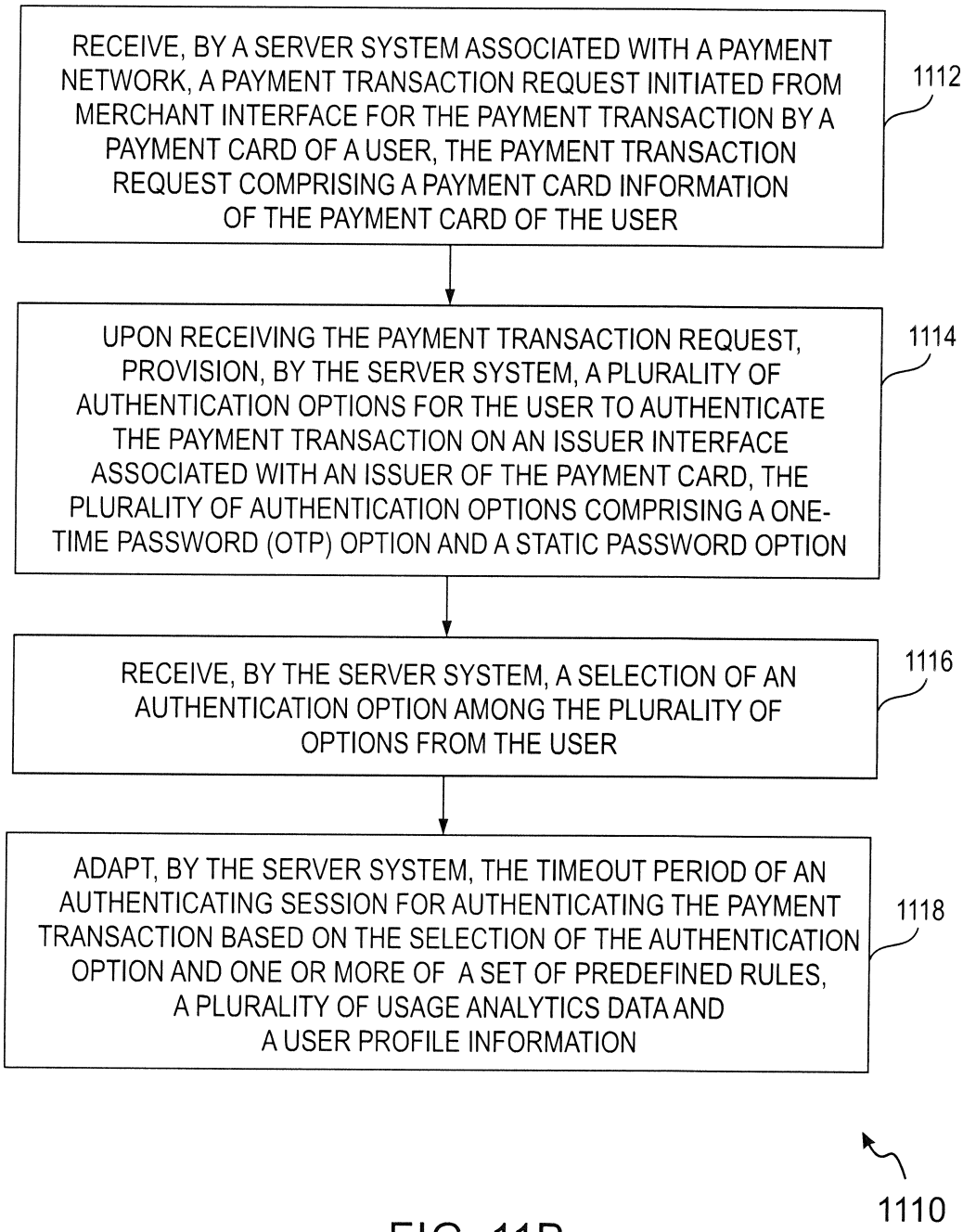

RECEIVE, BY A SERVER SYSTEM ASSOCIATED WITH A PAYMENT NETWORK, A PAYMENT TRANSACTION REQUEST INITIATED FROM MERCHANT INTERFACE FOR THE PAYMENT TRANSACTION BY A PAYMENT CARD OF A USER, THE PAYMENT TRANSACTION REQUEST COMPRISING A PAYMENT CARD INFORMATION OF THE PAYMENT CARD OF THE USER
1112
UPON RECEIVING THE PAYMENT TRANSACTION REQUEST, PROVISION, BY THE SERVER SYSTEM, A PLURALITY OF AUTHENTICATION OPTIONS FOR THE USER TO AUTHENTICATE THE PAYMENT TRANSACTION ON AN ISSUER INTERFACE ASSOCIATED WITH AN ISSUER OF THE PAYMENT CARD, THE PLURALITY OF AUTHENTICATION OPTIONS COMPRISING A ONE-TIME PASSWORD (OTP) OPTION AND A STATIC PASSWORD OPTION
1114
RECEIVE, BY THE SERVER SYSTEM, A SELECTION OF AN AUTHENTICATION OPTION AMONG THE PLURALITY OF OPTIONS FROM THE USER
1116
ADAPT, BY THE SERVER SYSTEM, THE TIMEOUT PERIOD OF AN AUTHENTICATING SESSION FOR AUTHENTICATING THE PAYMENT TRANSACTION BASED ON THE SELECTION OF THE AUTHENTICATION OPTION AND ONE OR MORE OF A SET OF PREDEFINED RULES, A PLURALITY OF USAGE ANALYTICS DATA AND A USER PROFILE INFORMATION
1118
1110

FIG. 11B

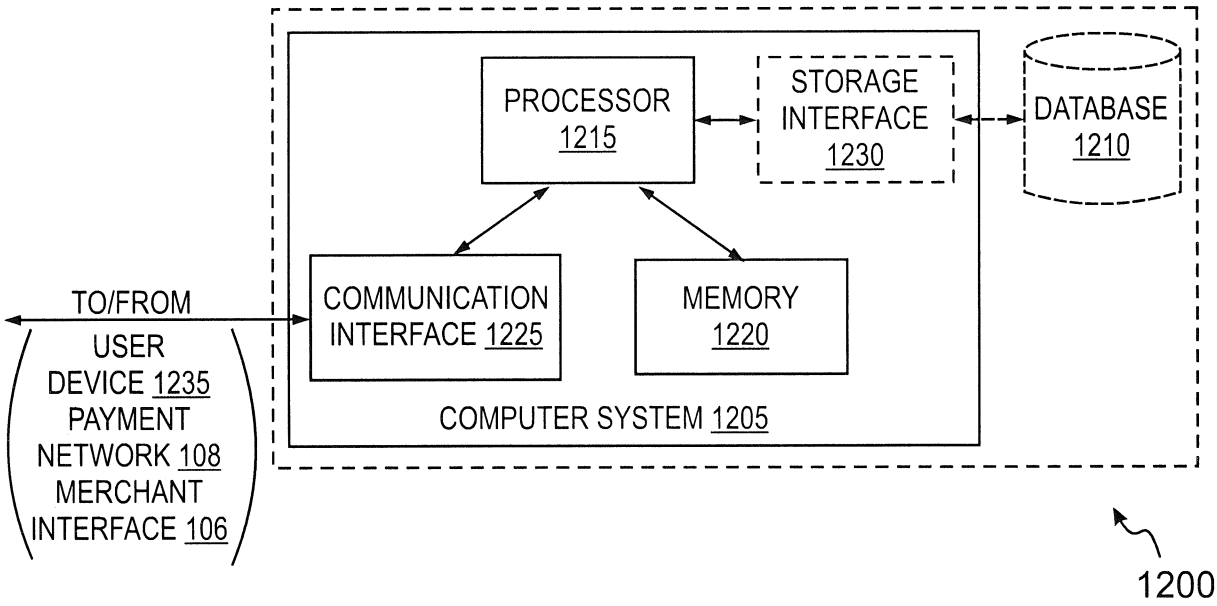

PROCESSOR
1215
STORAGE
INTERFACE
1230
DATABASE
1210
COMMUNICATION
INTERFACE 1225
MEMORY
1220
COMPUTER SYSTEM 1205
TO/FROM
USER
DEVICE 1235
PAYMENT
NETWORK 108
MERCHANT
INTERFACE 106
1200

FIG. 12

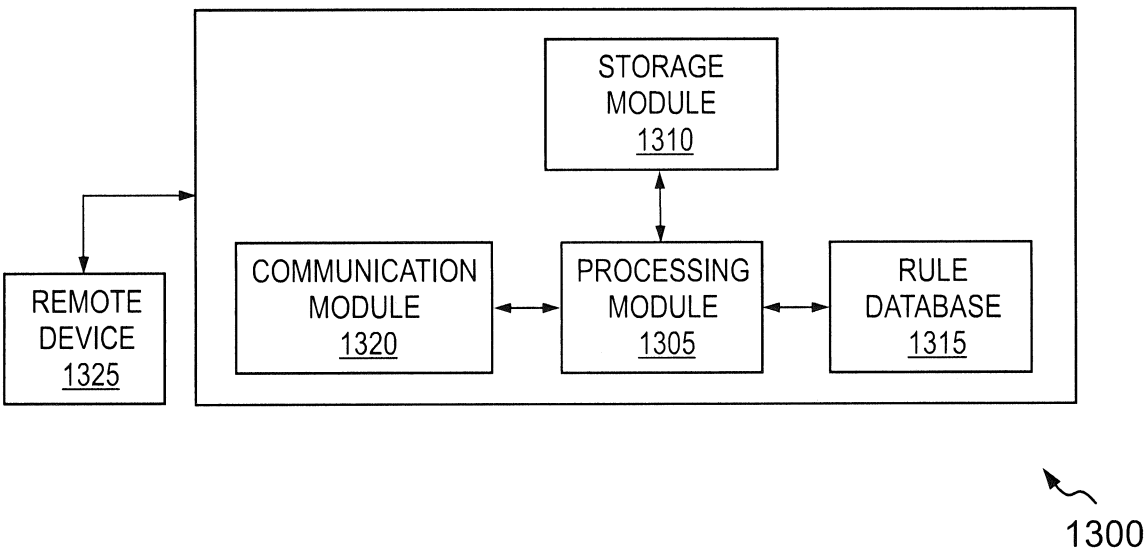

STORAGE
MODULE
1310
COMMUNICATION
MODULE
1320
PROCESSING
MODULE
1305
RULE
DATABASE
1315
REMOTE
DEVICE
1325
1300

FIG. 13

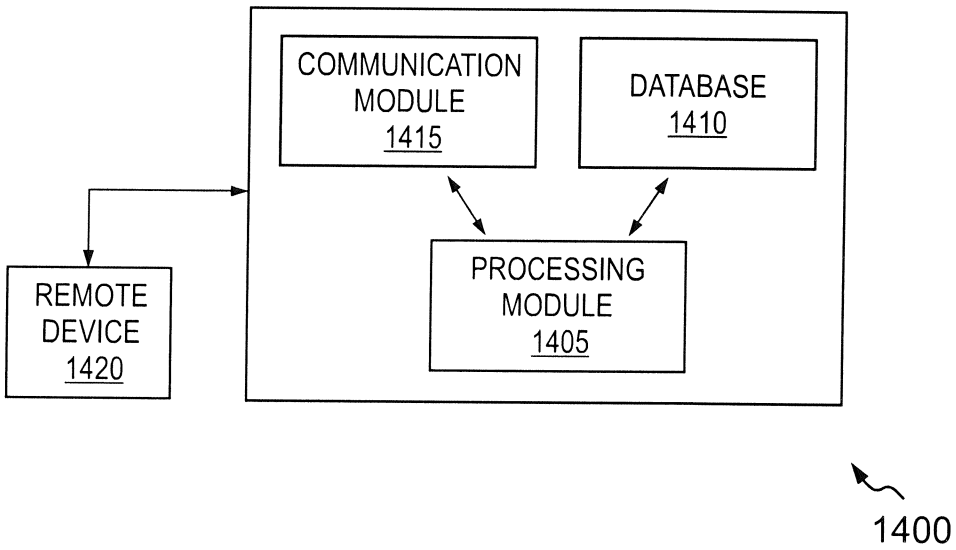

COMMUNICATION MODULE 1415
DATABASE 1410
PROCESSING MODULE 1405
REMOTE DEVICE 1420
1400

FIG. 14

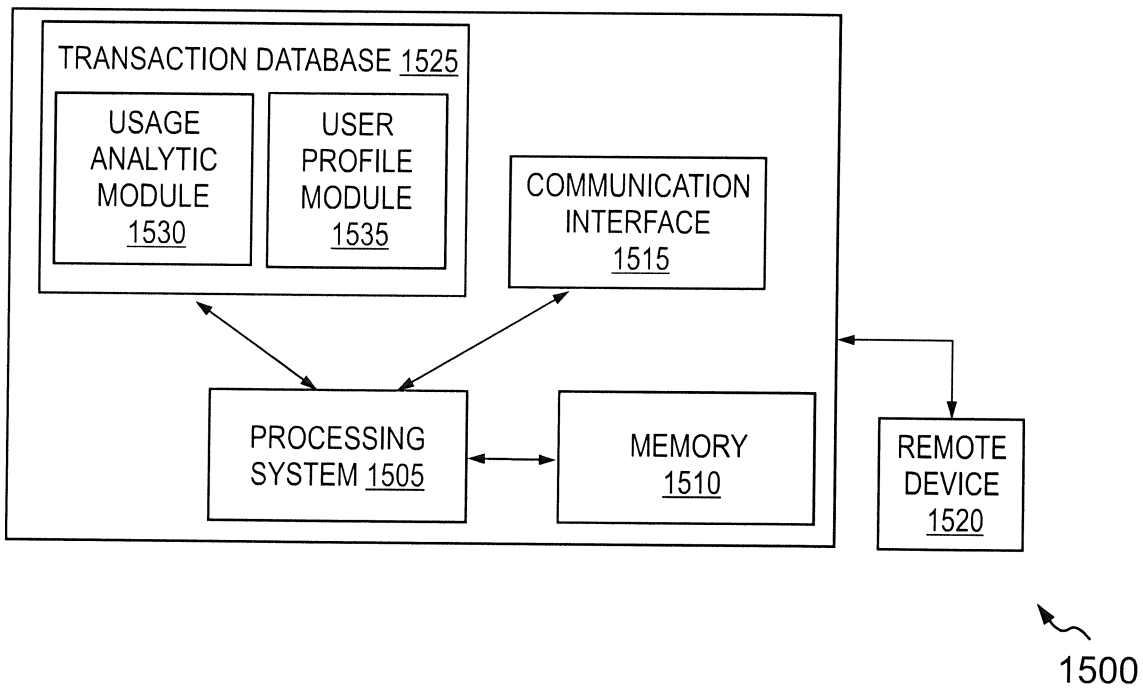

TRANSACTION DATABASE 1525
USAGE ANALYTIC MODULE 1530
USER PROFILE MODULE 1535
COMMUNICATION INTERFACE 1515
PROCESSING SYSTEM 1505
MEMORY 1510
REMOTE DEVICE 1520
1500

FIG. 15

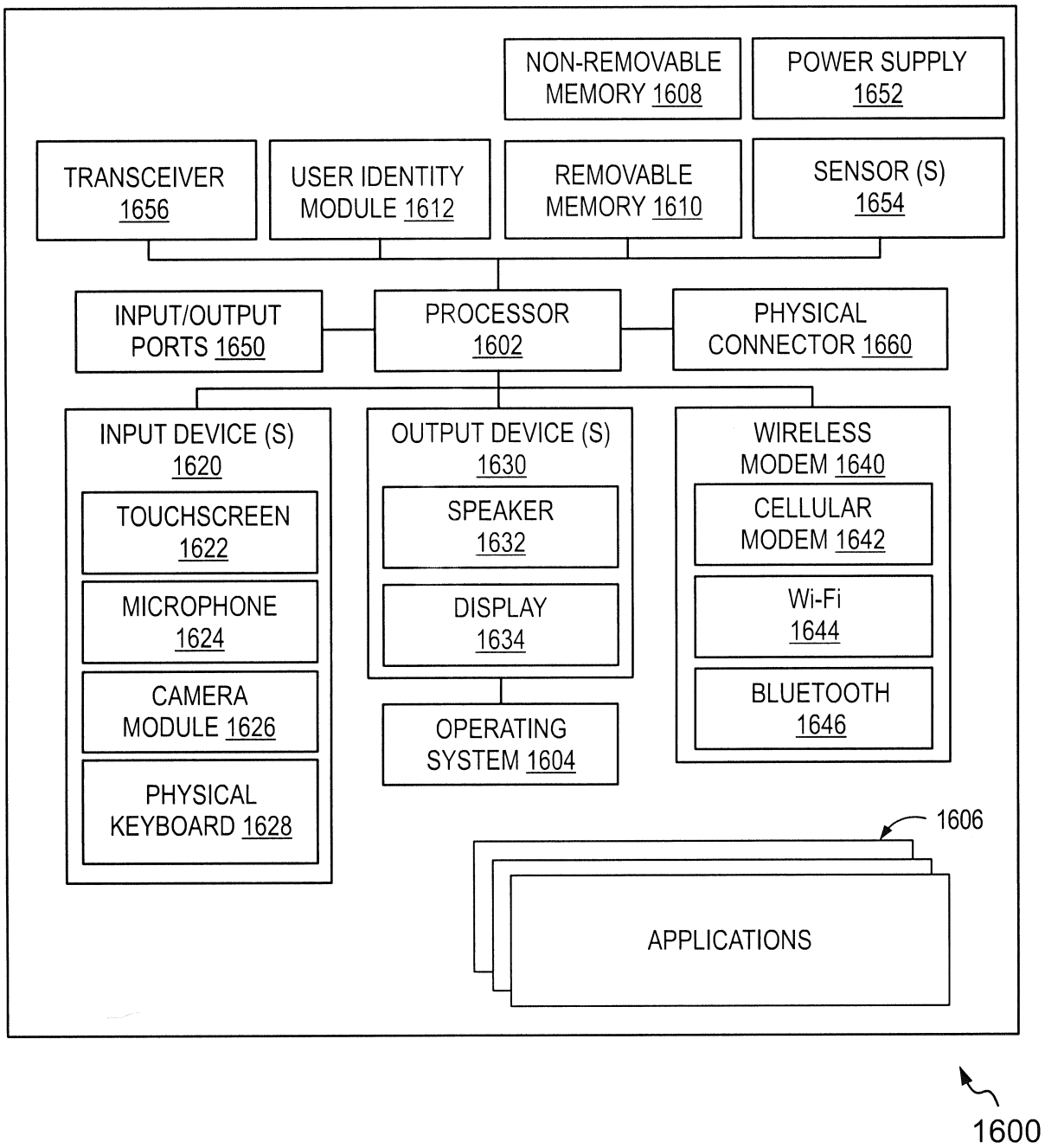

NON-REMOVABLE MEMORY 1608
POWER SUPPLY 1652
TRANSCEIVER 1656
USER IDENTITY MODULE 1612
REMOVABLE MEMORY 1610
SENSOR (S) 1654
INPUT/OUTPUT PORTS 1650
PROCESSOR 1602
PHYSICAL CONNECTOR 1660
INPUT DEVICE (S) 1620
TOUCHSCREEN 1622
MICROPHONE 1624
CAMERA MODULE 1626
PHYSICAL KEYBOARD 1628
OUTPUT DEVICE (S) 1630
SPEAKER 1632
DISPLAY 1634
OPERATING SYSTEM 1604
WIRELESS MODEM 1640
CELLULAR MODEM 1642
Wi-Fi 1644
BLUETOOTH 1646
1606
APPLICATIONS
1600

FIG. 16