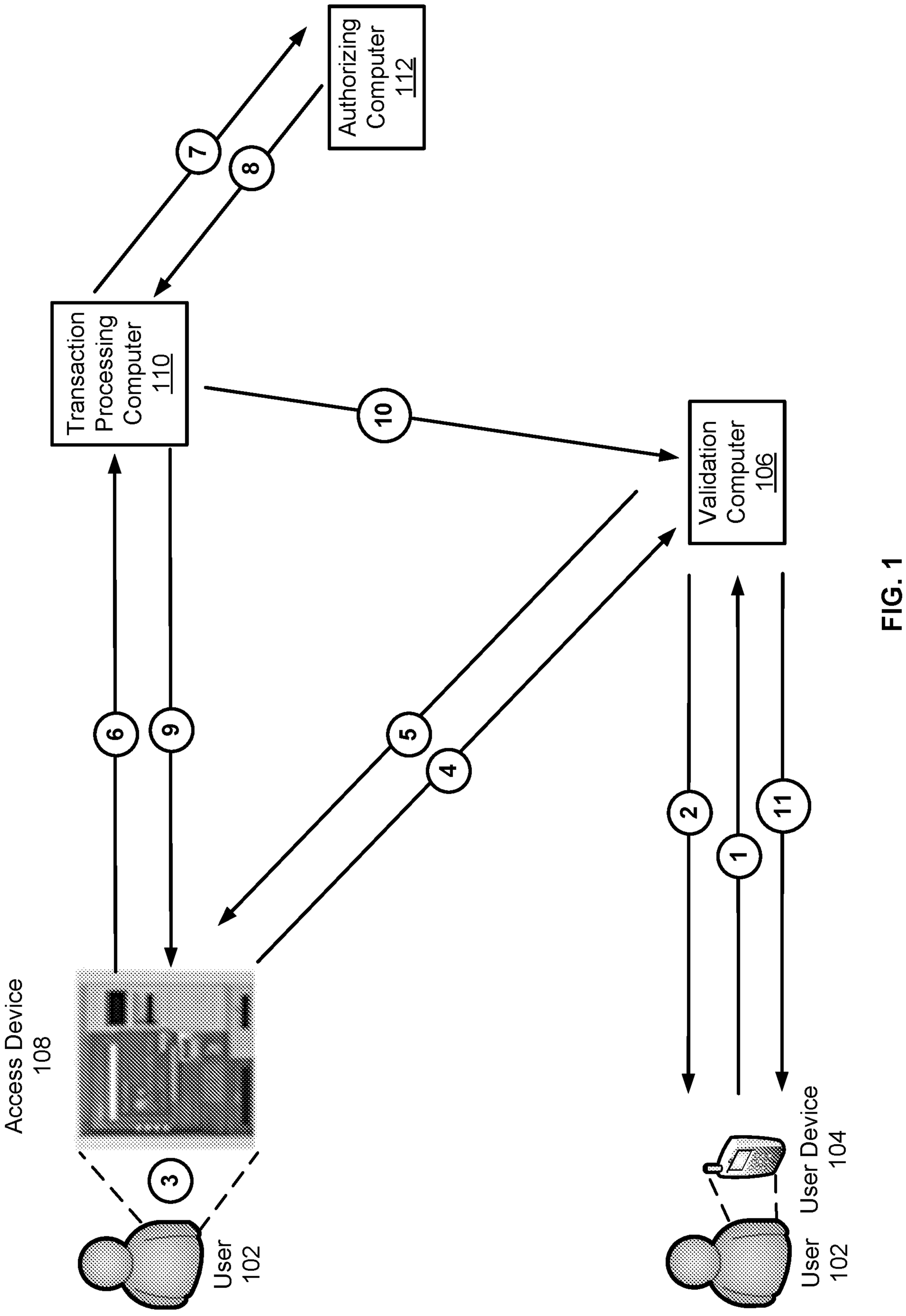

Authorizing Computer 112
Transaction Processing Computer 110
Validation Computer 106
Access Device 108
User 102
User Device 104
1
2
3
4
5
6
7
8
9
10
11

FIG. 1

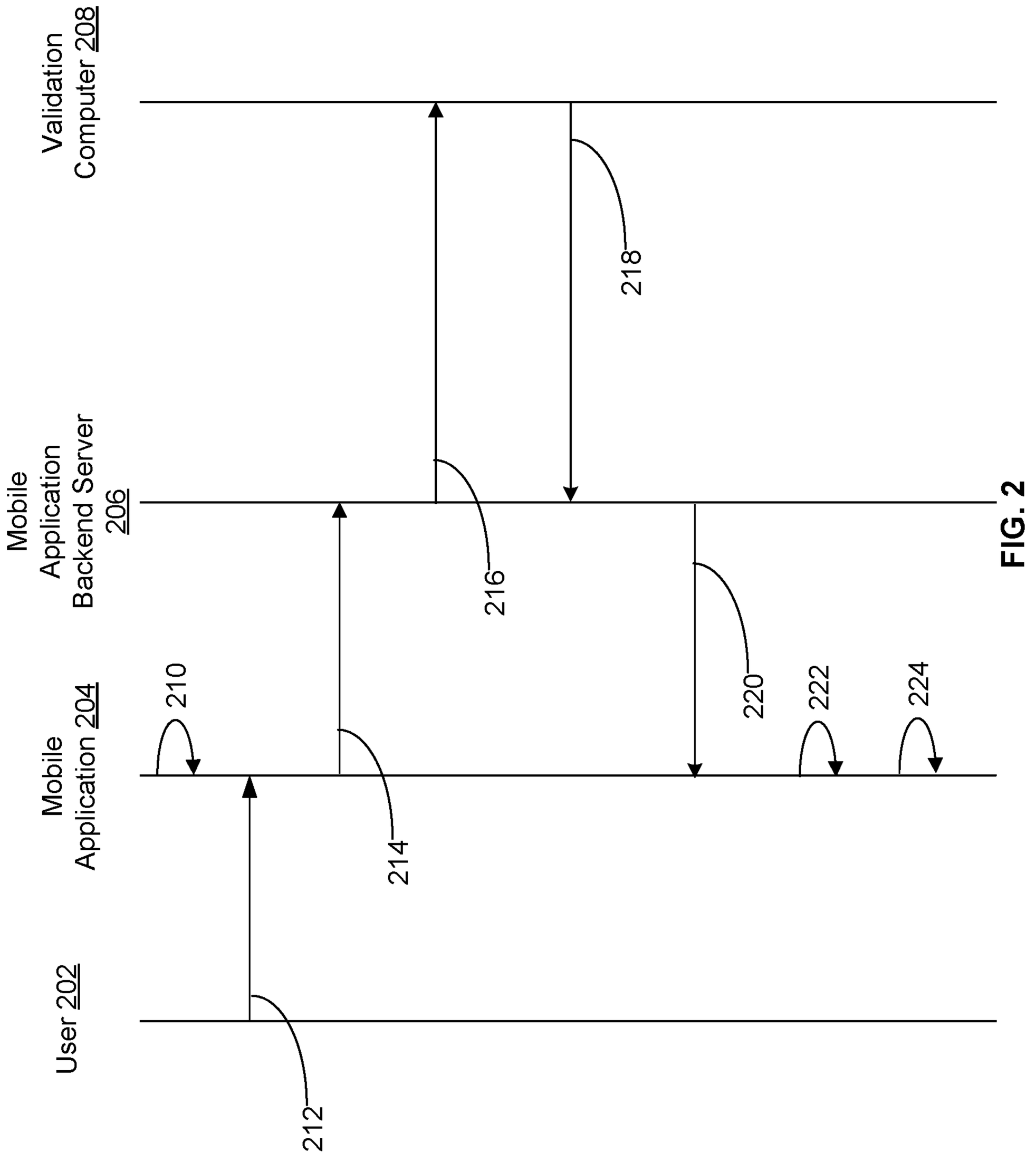

User 202
Mobile Application 204
Mobile Application Backend Server 206
Validation Computer 208
200
210
212
214
216
218
220
222
224

FIG. 2

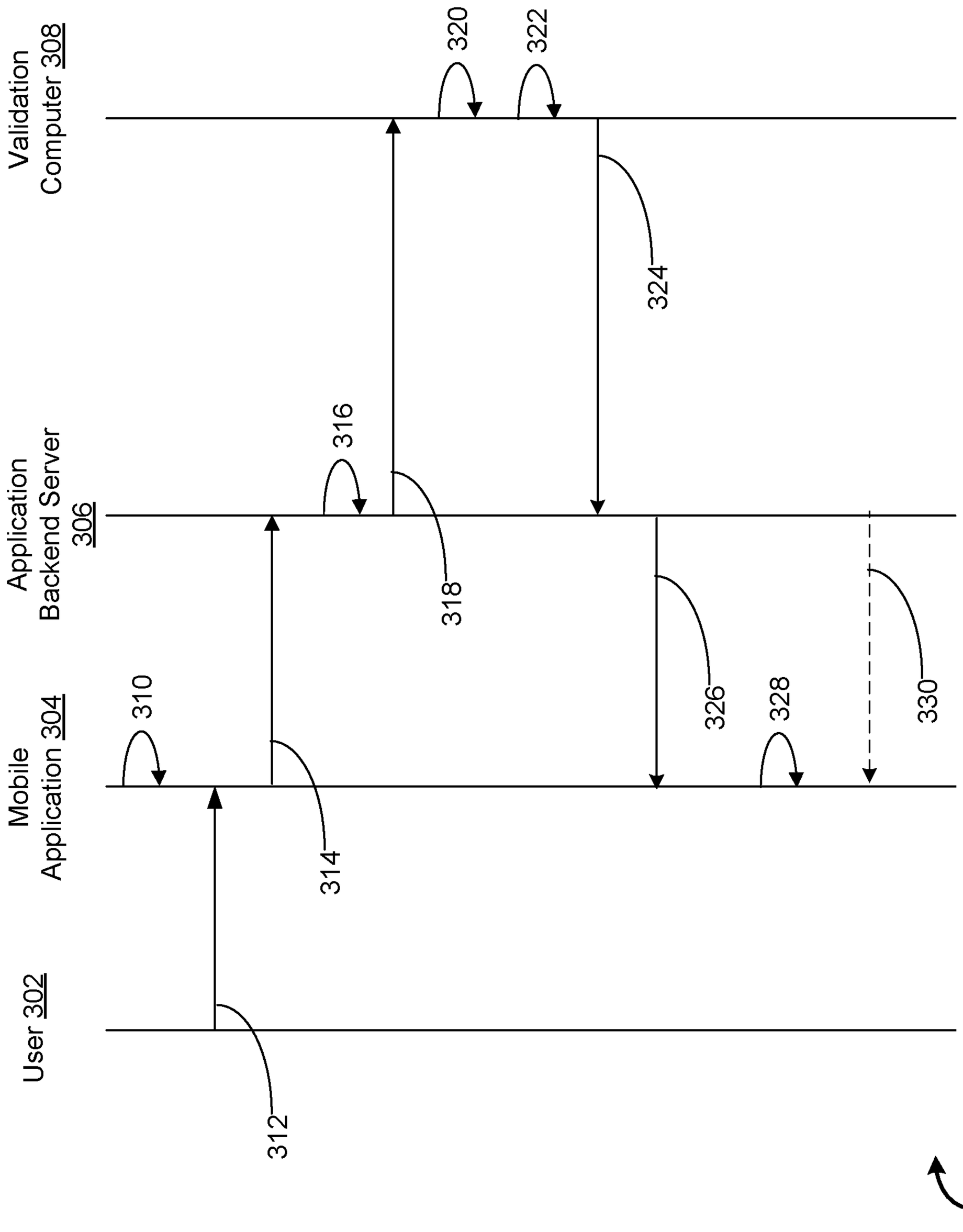

User 302
Mobile Application 304
Mobile Application Backend Server 306
Validation Computer 308
310
312
314
316
318
320
322
324
326
328
330
300

FIG. 3

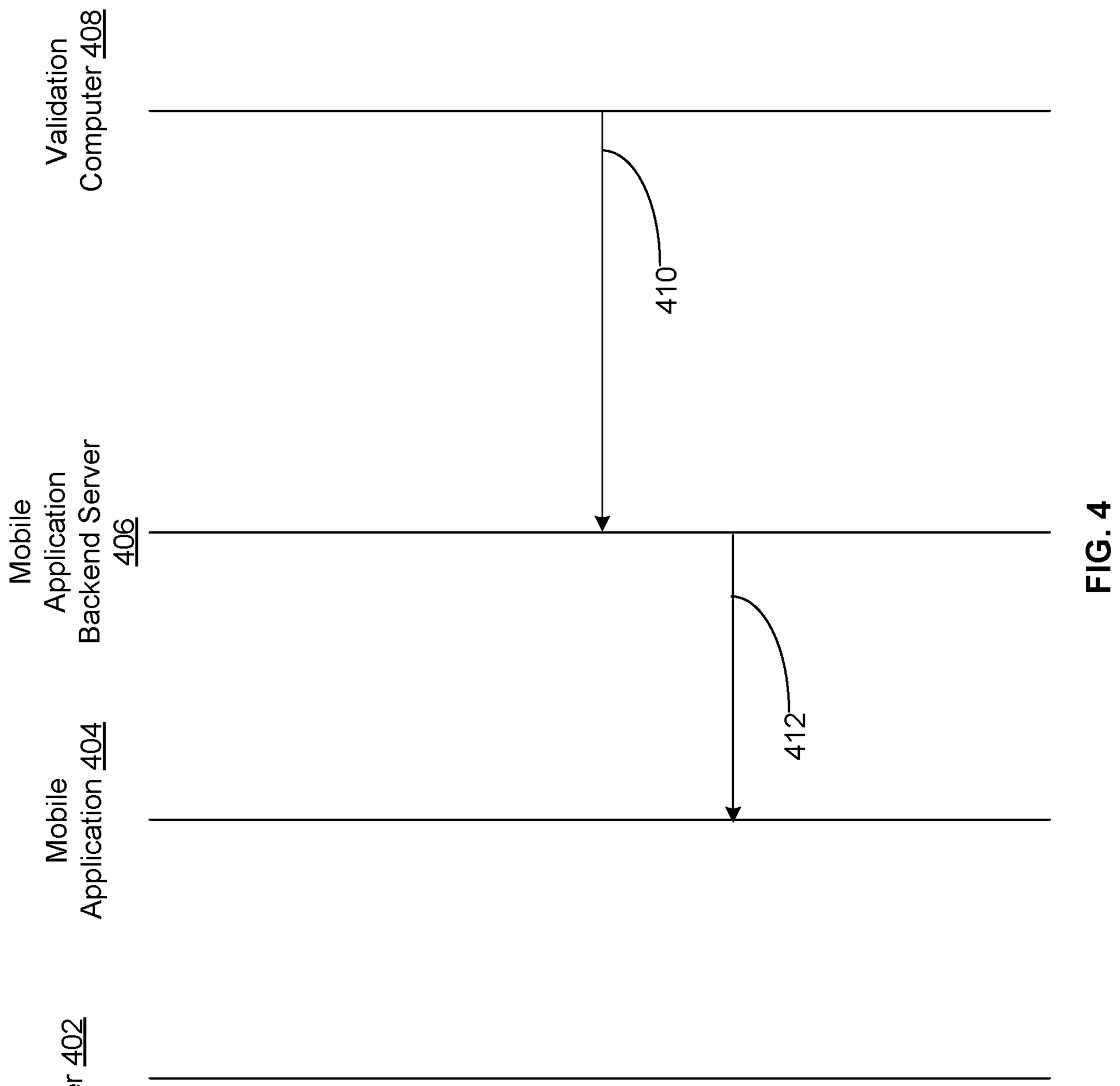

User 402
Mobile Application 404
Mobile Application Backend Server 406
Validation Computer 408
400
410
412

FIG. 4

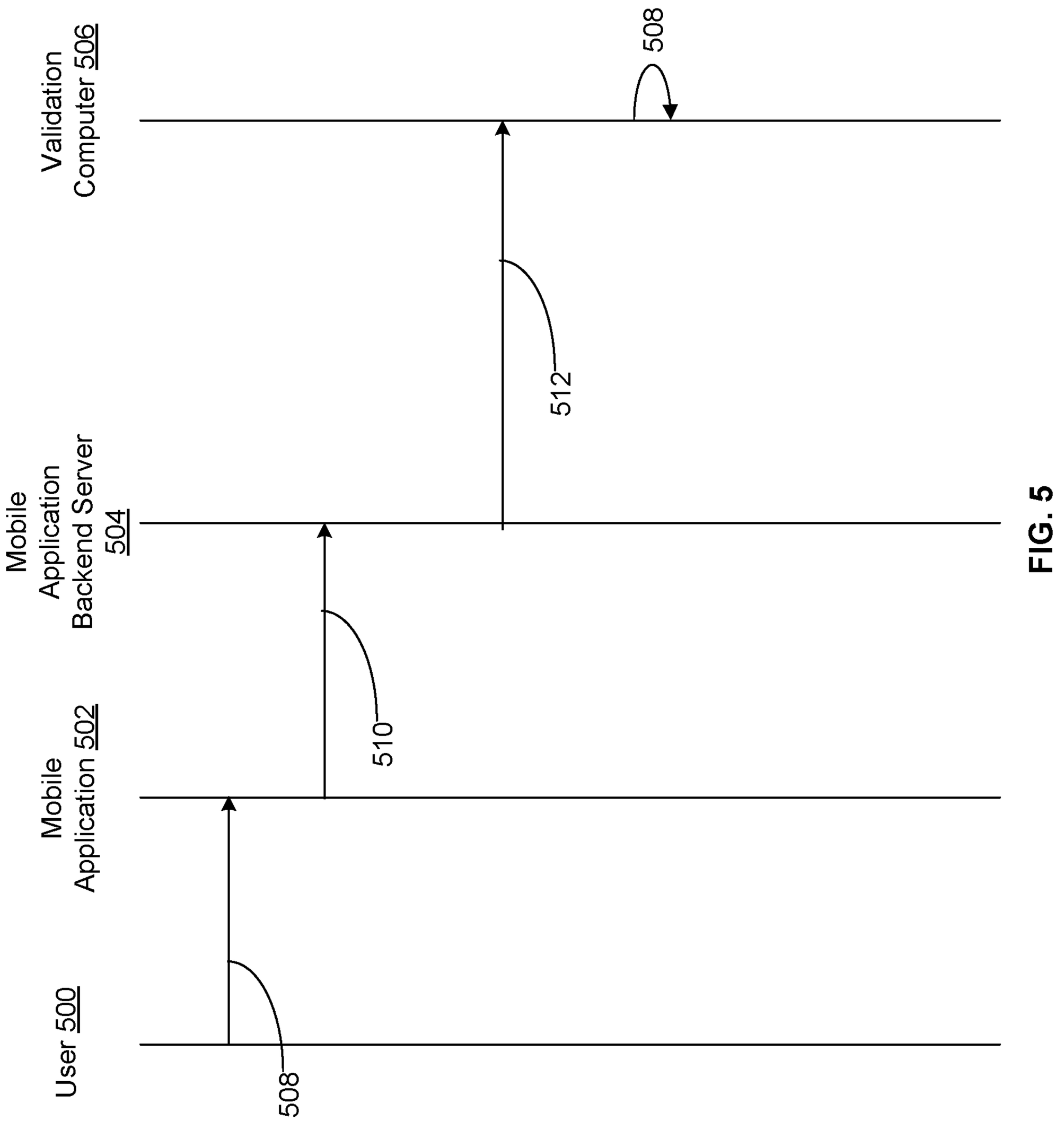

User 500
Mobile Application 502
Mobile Application Backend Server 504
Validation Computer 506
508
510
512
514
500

FIG. 5

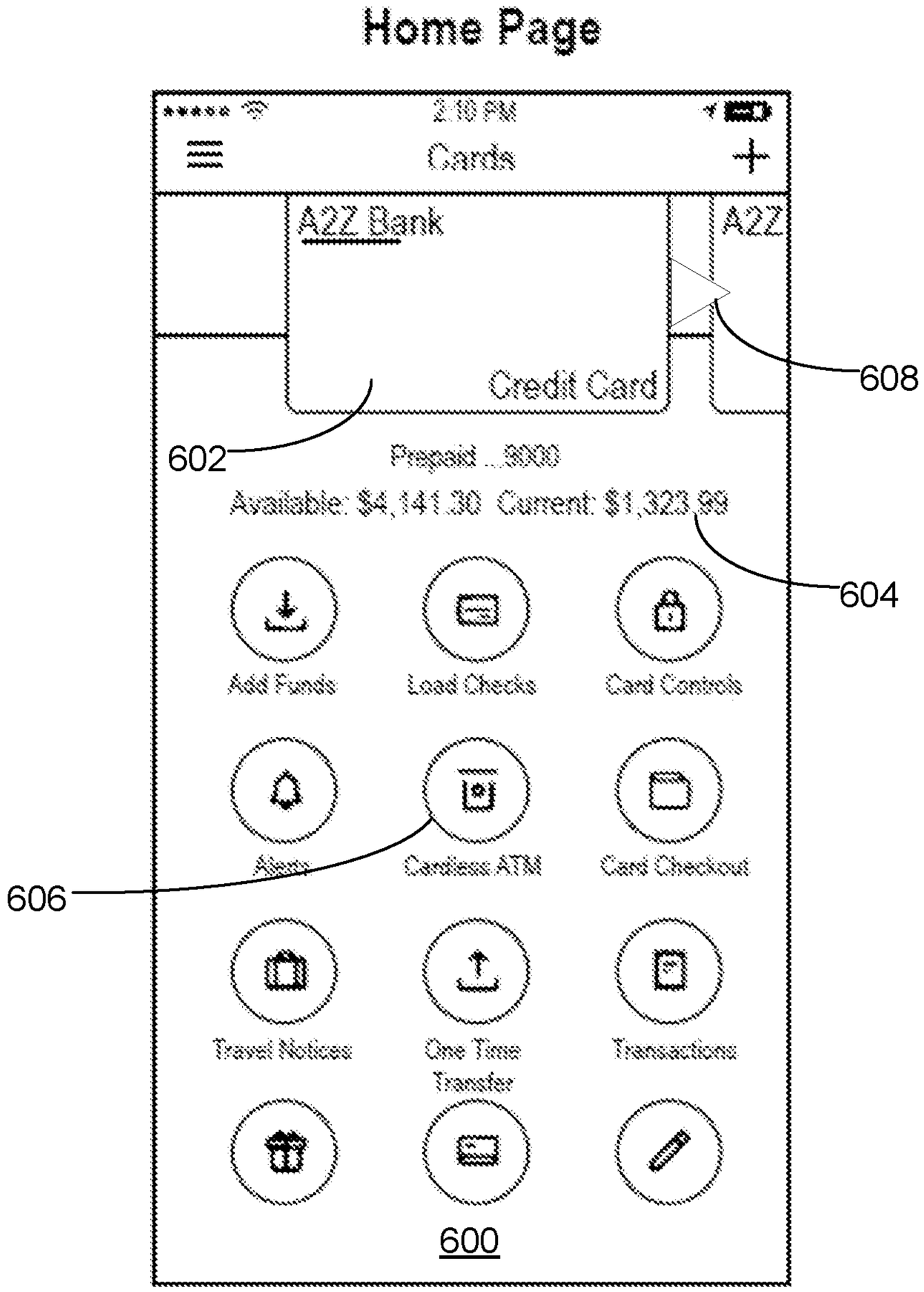

Home Page
2:10 PM
Cards
A2Z Bank
A2Z
Credit Card
602
608
Prepaid ...9000
Available: $4,141.30 Current: $1,323.99
604
Add Funds
Load Checks
Card Controls
Alerts
Cardless ATM
Card Checkout
606
Travel Notices
One Time Transfer
Transactions
600

FIG. 6

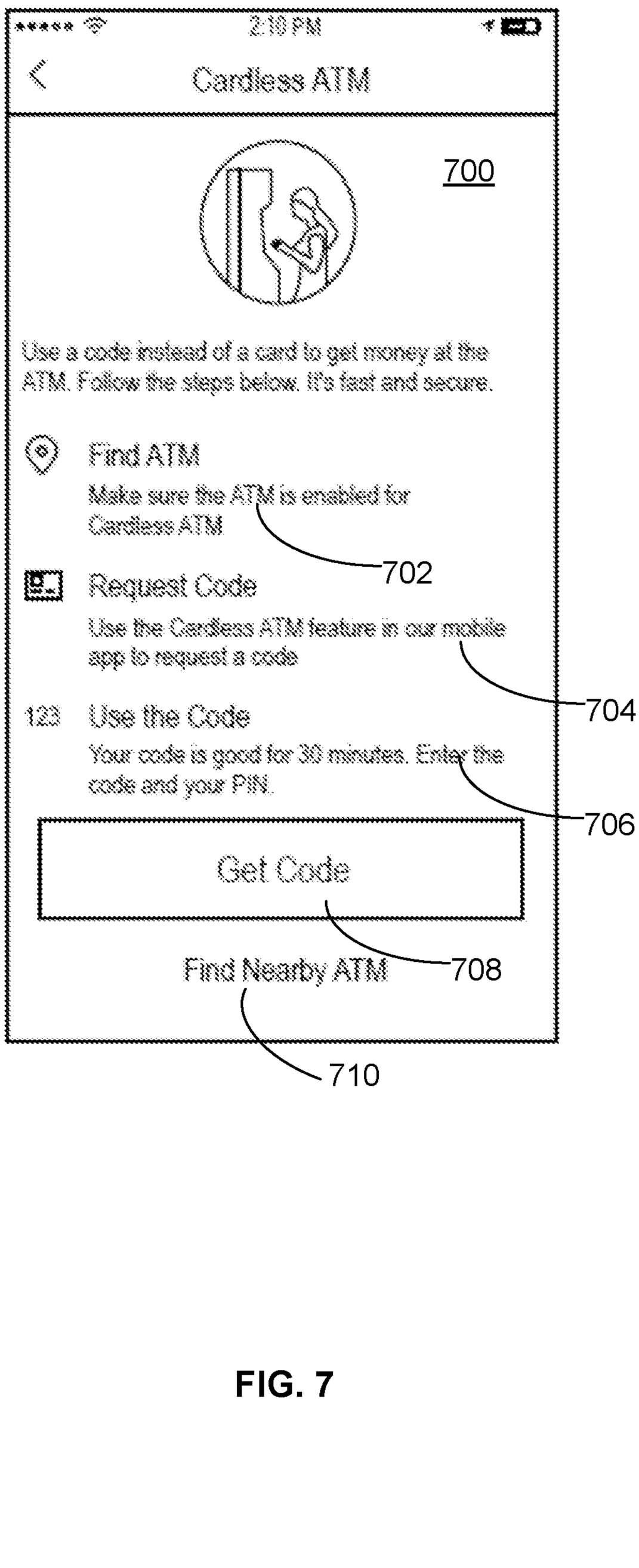

Get Access Code
2:19 PM
Cardless ATM
700
Use a code instead of a card to get money at the ATM. Follow the steps below. It's fast and secure.
Find ATM
Make sure the ATM is enabled for Cardless ATM
702
Request Code
Use the Cardless ATM feature in our mobile app to request a code
704
123 Use the Code
Your code is good for 30 minutes. Enter the code and your PIN.
706
Get Code
708
Find Nearby ATM
710

FIG. 7

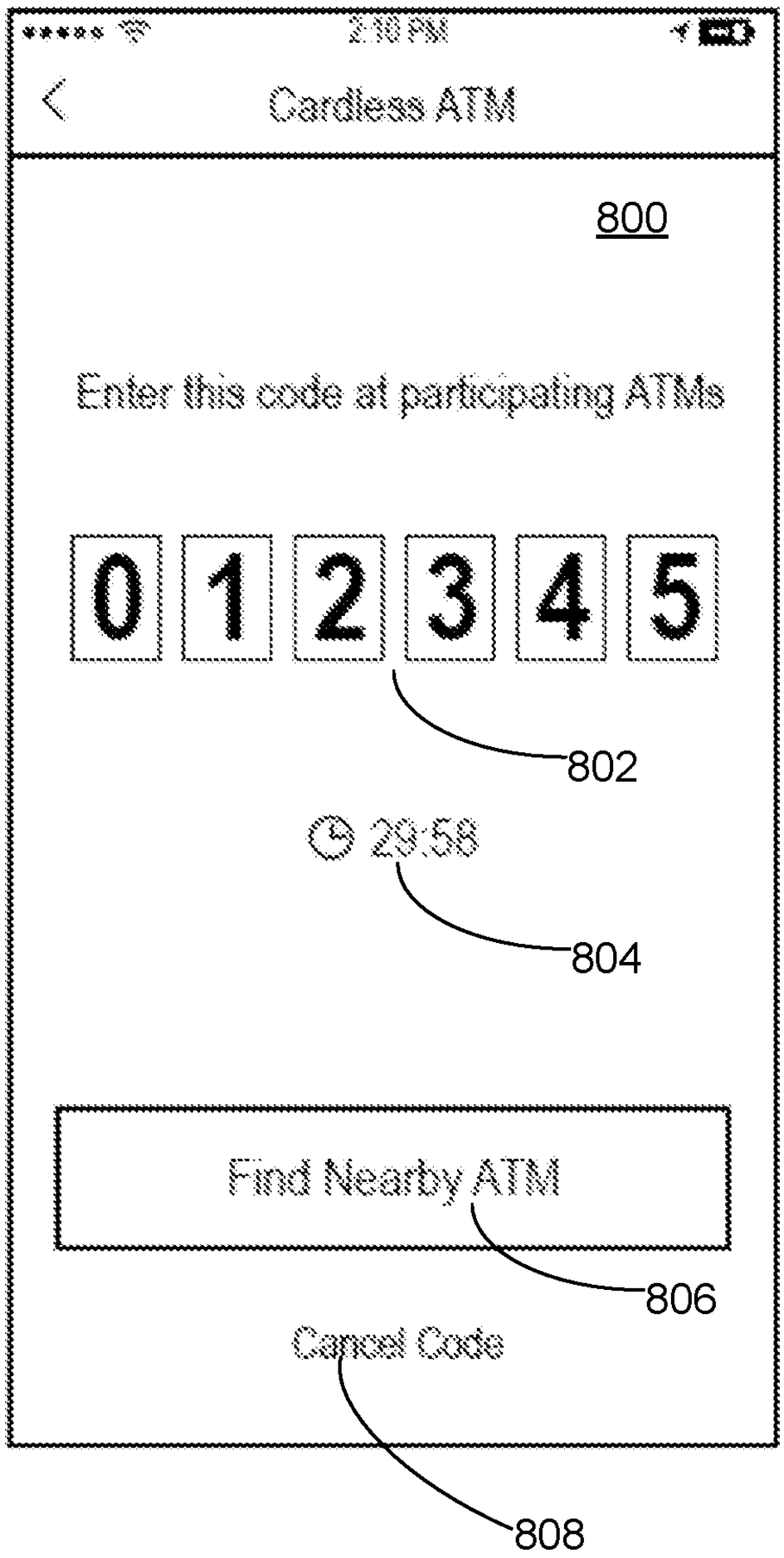

Display Code
2:10 PM
Cardless ATM
800
Enter this code at participating ATMs
0 1 2 3 4 5
802
29:58
804
Find Nearby ATM
806
Cancel Code
808

FIG. 8

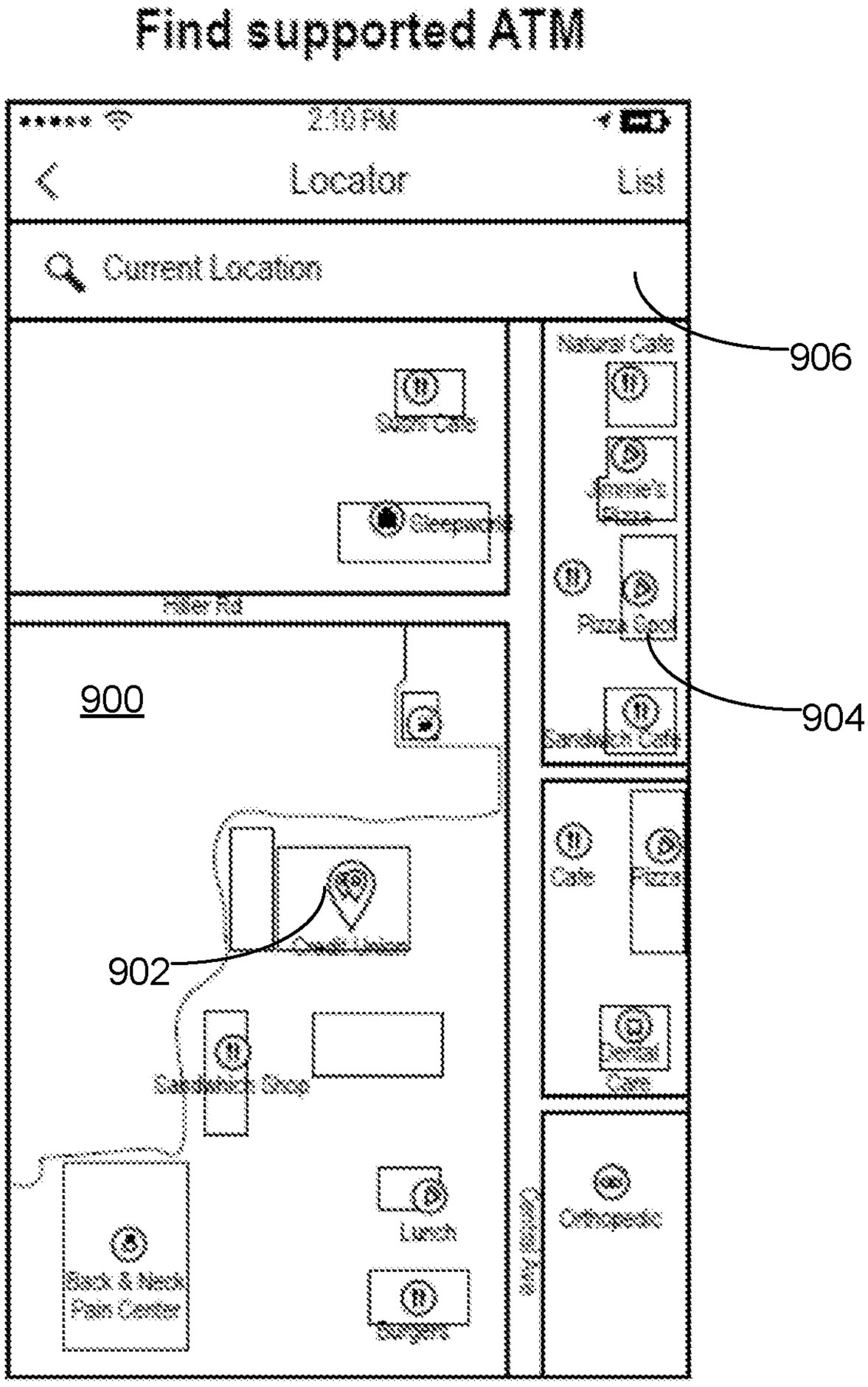

Find supported ATM
2:18 PM
Locator
List
Current Location
906
900
902
904
Heller Rd
Black & Neck Pain Center
Lunch
Orthopedic

FIG. 9

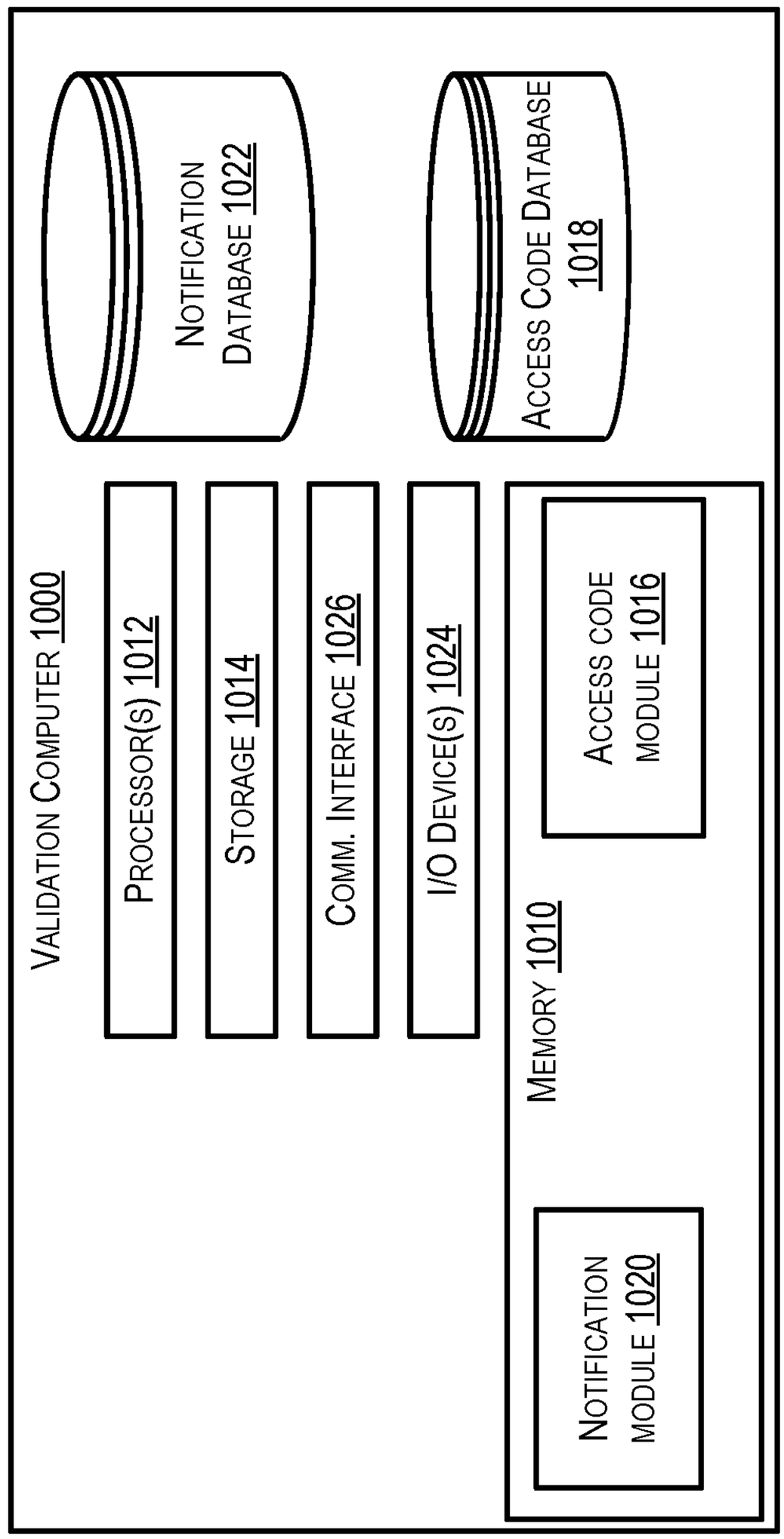

VALIDATION COMPUTER 1000
PROCESSOR(S) 1012
STORAGE 1014
COMM. INTERFACE 1026
I/O DEVICE(S) 1024
MEMORY 1010
ACCESS CODE MODULE 1016
NOTIFICATION MODULE 1020
NOTIFICATION DATABASE 1022
ACCESS CODE DATABASE 1018

FIG. 10

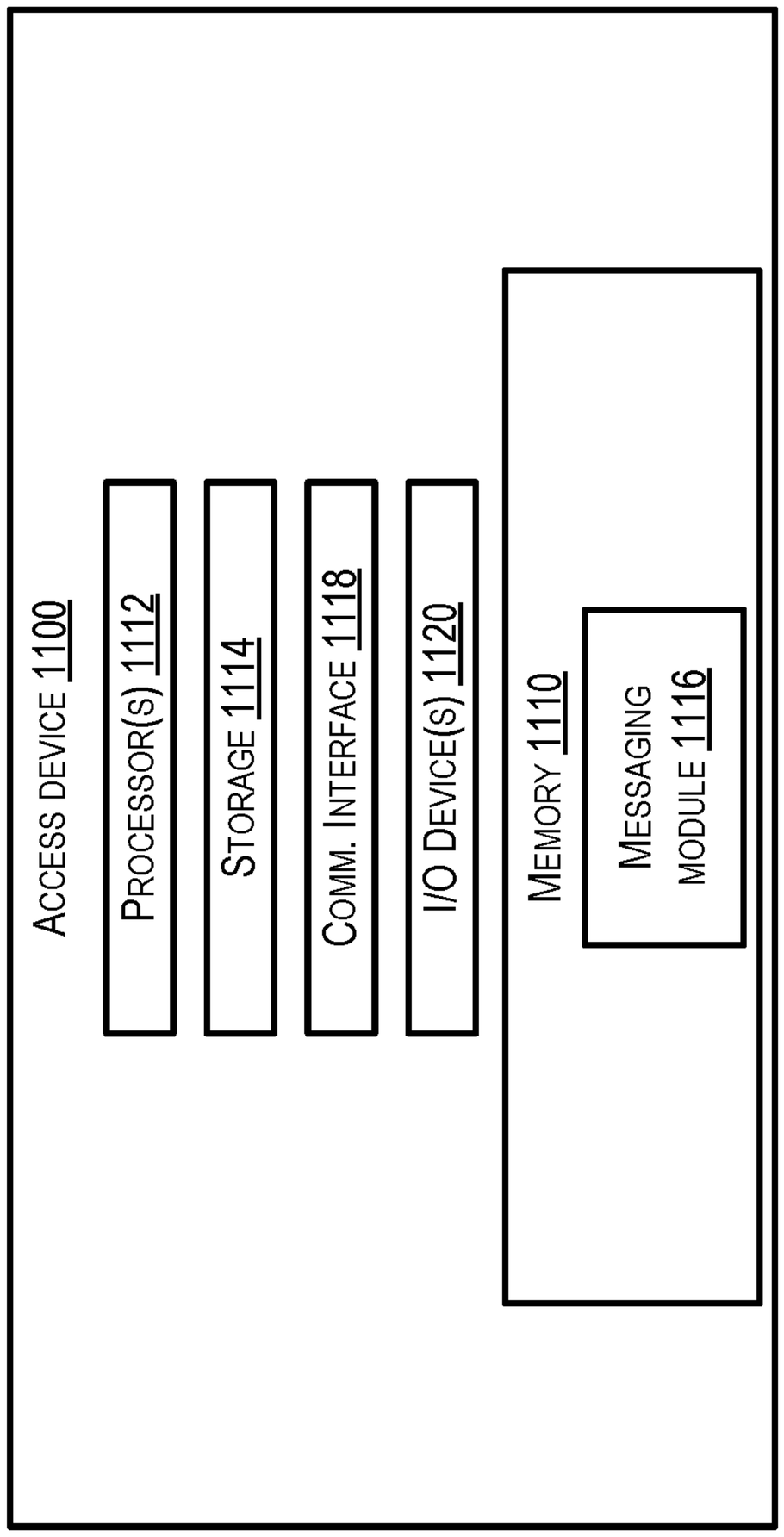

ACCESS DEVICE 1100
PROCESSOR(S) 1112
STORAGE 1114
COMM. INTERFACE 1118
I/O DEVICE(S) 1120
MEMORY 1110
MESSAGING MODULE 1116

FIG. 11

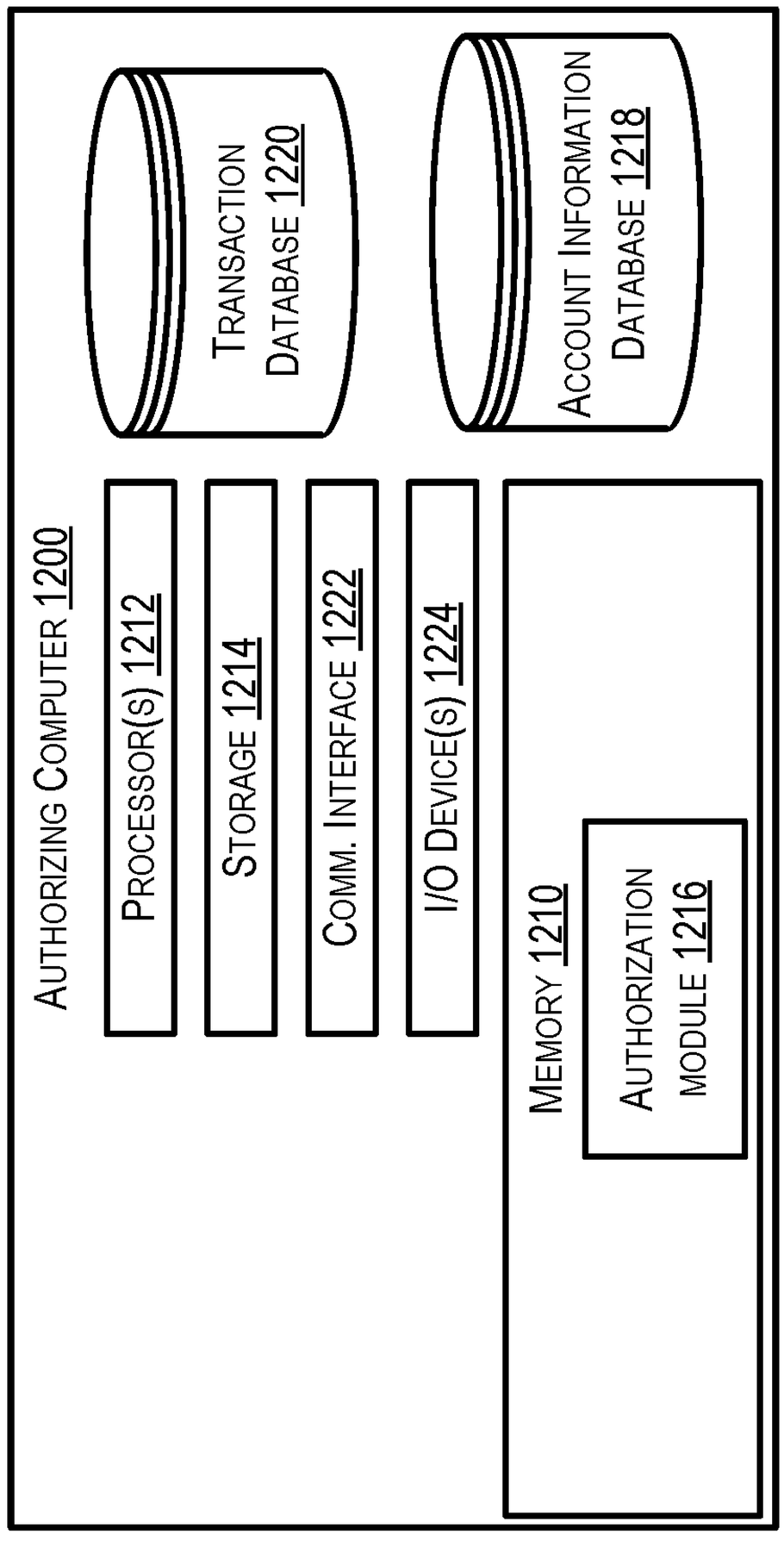

AUTHORIZING COMPUTER 1200
PROCESSOR(S) 1212
STORAGE 1214
COMM. INTERFACE 1222
I/O DEVICE(S) 1224
MEMORY 1210
AUTHORIZATION MODULE 1216
TRANSACTION DATABASE 1220
ACCOUNT INFORMATION DATABASE 1218

FIG. 12

1300

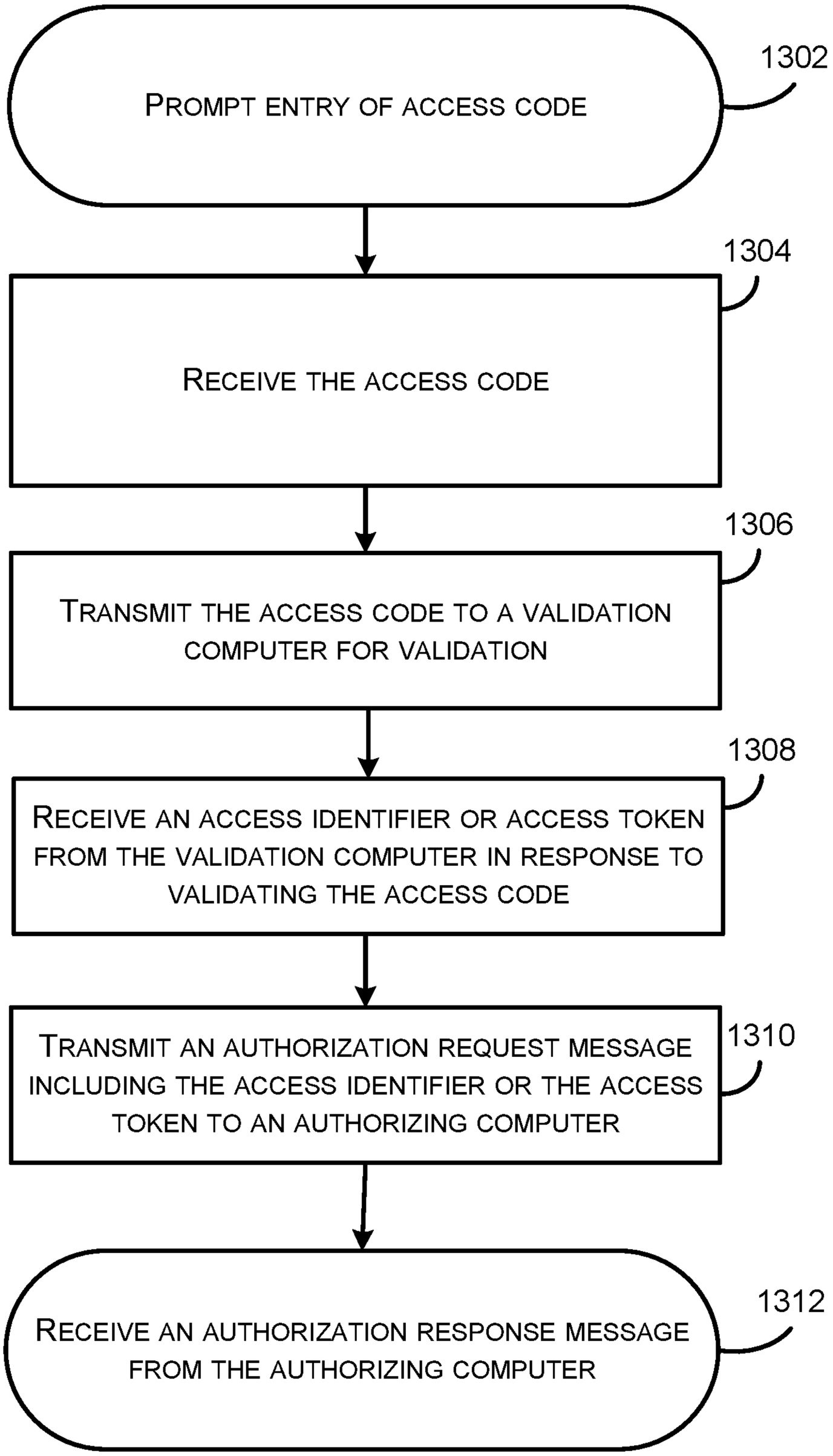

PROMPT ENTRY OF ACCESS CODE
1302
RECEIVE THE ACCESS CODE
1304
TRANSMIT THE ACCESS CODE TO A VALIDATION COMPUTER FOR VALIDATION
1306
RECEIVE AN ACCESS IDENTIFIER OR ACCESS TOKEN FROM THE VALIDATION COMPUTER IN RESPONSE TO VALIDATING THE ACCESS CODE
1308
TRANSMIT AN AUTHORIZATION REQUEST MESSAGE INCLUDING THE ACCESS IDENTIFIER OR THE ACCESS TOKEN TO AN AUTHORIZING COMPUTER
1310
RECEIVE AN AUTHORIZATION RESPONSE MESSAGE FROM THE AUTHORIZING COMPUTER
1312

FIG. 13

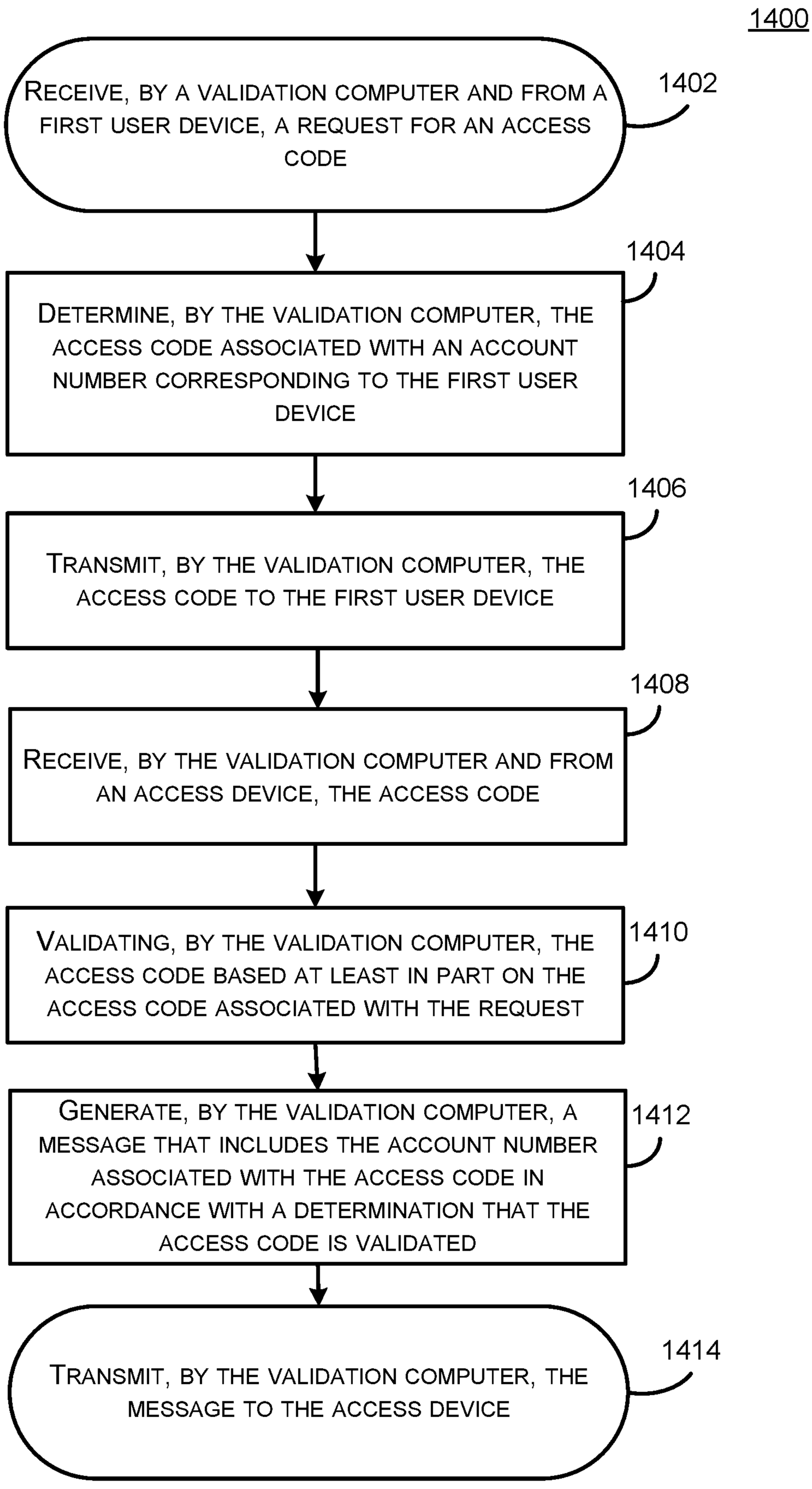

1400
RECEIVE, BY A VALIDATION COMPUTER AND FROM A FIRST USER DEVICE, A REQUEST FOR AN ACCESS CODE
1402
DETERMINE, BY THE VALIDATION COMPUTER, THE ACCESS CODE ASSOCIATED WITH AN ACCOUNT NUMBER CORRESPONDING TO THE FIRST USER DEVICE
1404
TRANSMIT, BY THE VALIDATION COMPUTER, THE ACCESS CODE TO THE FIRST USER DEVICE
1406
RECEIVE, BY THE VALIDATION COMPUTER AND FROM AN ACCESS DEVICE, THE ACCESS CODE
1408
VALIDATING, BY THE VALIDATION COMPUTER, THE ACCESS CODE BASED AT LEAST IN PART ON THE ACCESS CODE ASSOCIATED WITH THE REQUEST
1410
GENERATE, BY THE VALIDATION COMPUTER, A MESSAGE THAT INCLUDES THE ACCOUNT NUMBER ASSOCIATED WITH THE ACCESS CODE IN ACCORDANCE WITH A DETERMINATION THAT THE ACCESS CODE IS VALIDATED
1412
TRANSMIT, BY THE VALIDATION COMPUTER, THE MESSAGE TO THE ACCESS DEVICE
1414

FIG. 14