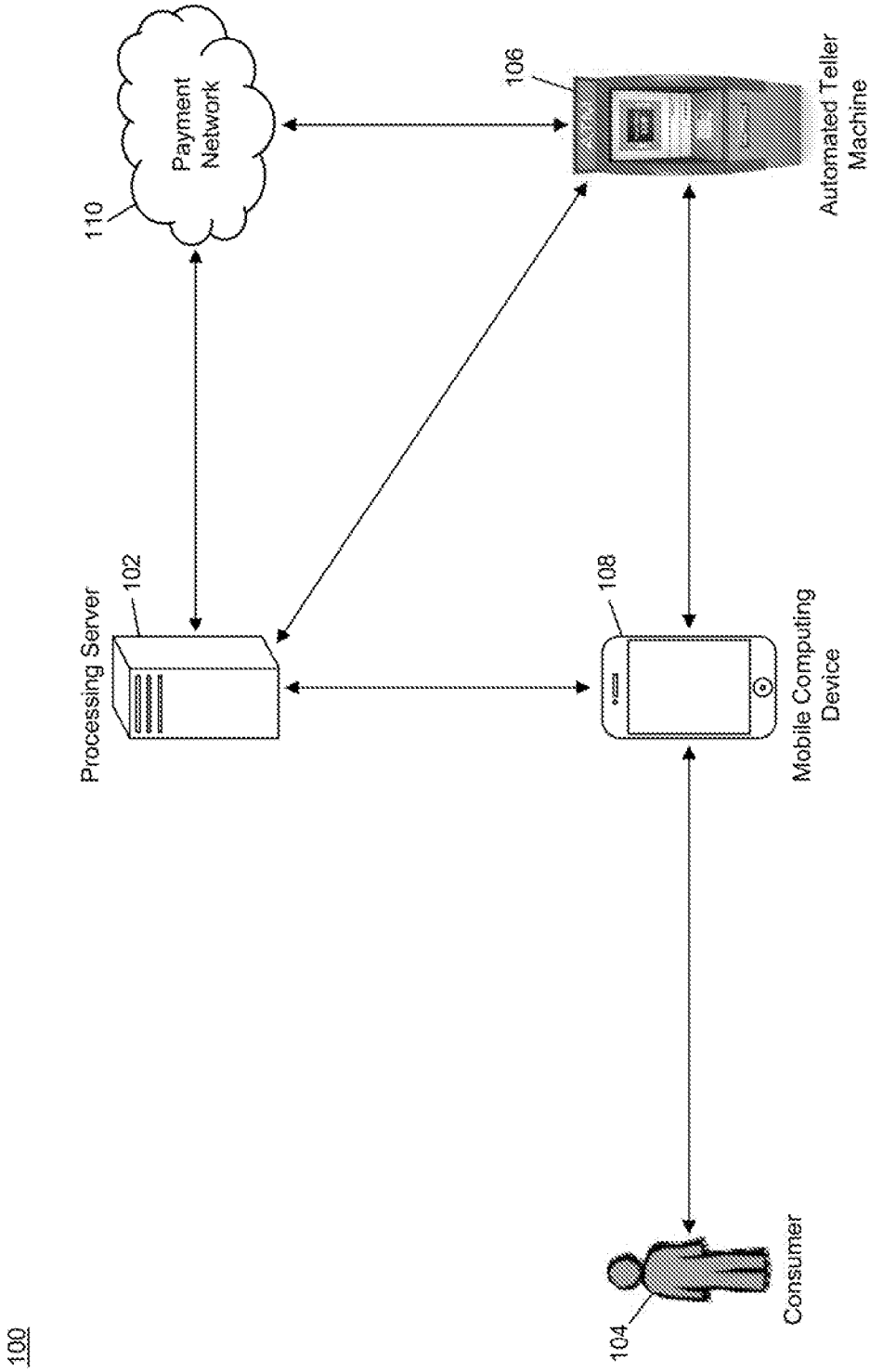

Payment Network
110
106
Automated Teller Machine
Processing Server
102
108
Mobile Computing Device
Consumer
104
100

FIG. 1

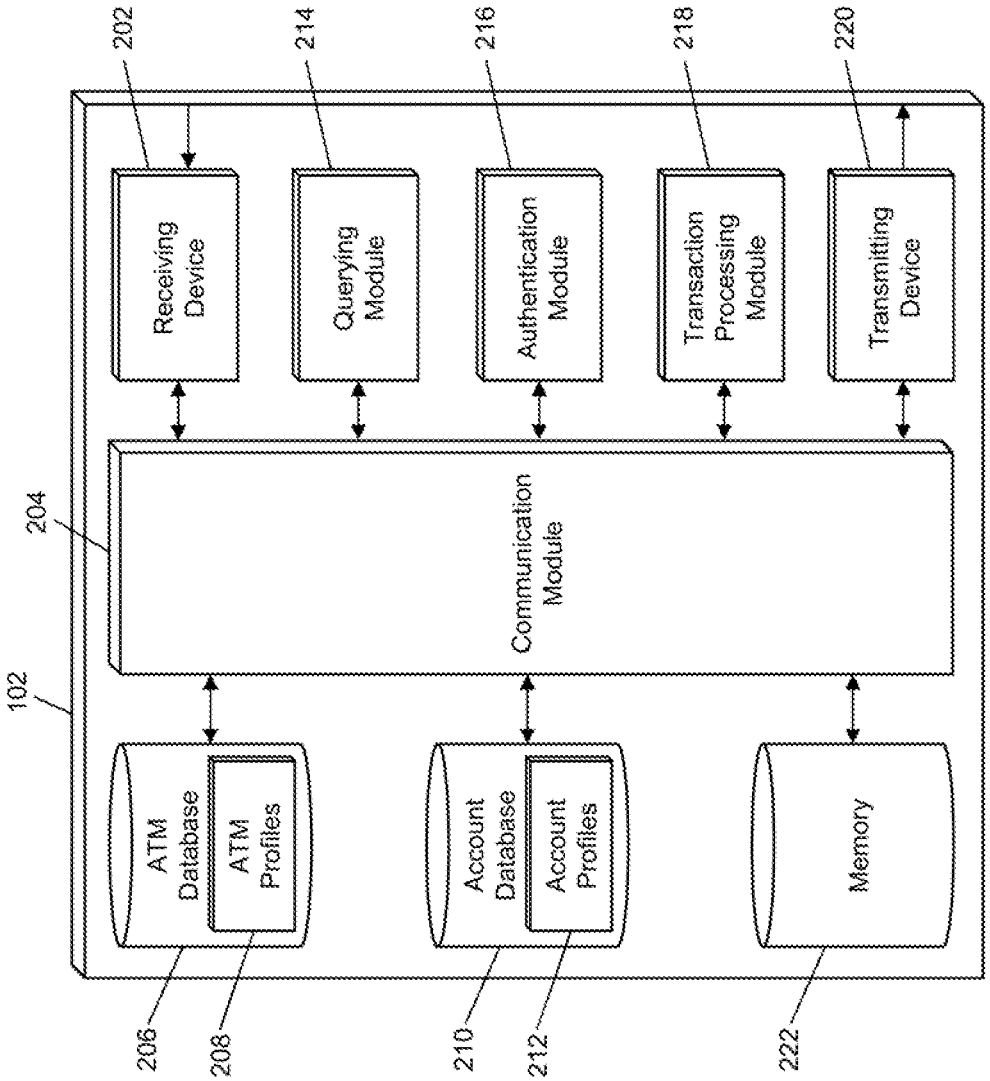

102
202
214
216
218
220
204
Receiving Device
Querying Module
Authentication Module
Transaction Processing Module
Transmitting Device
Communication Module
ATM Database
ATM Profiles
Account Database
Account Profiles
Memory
206
208
210
212
222

FIG. 2

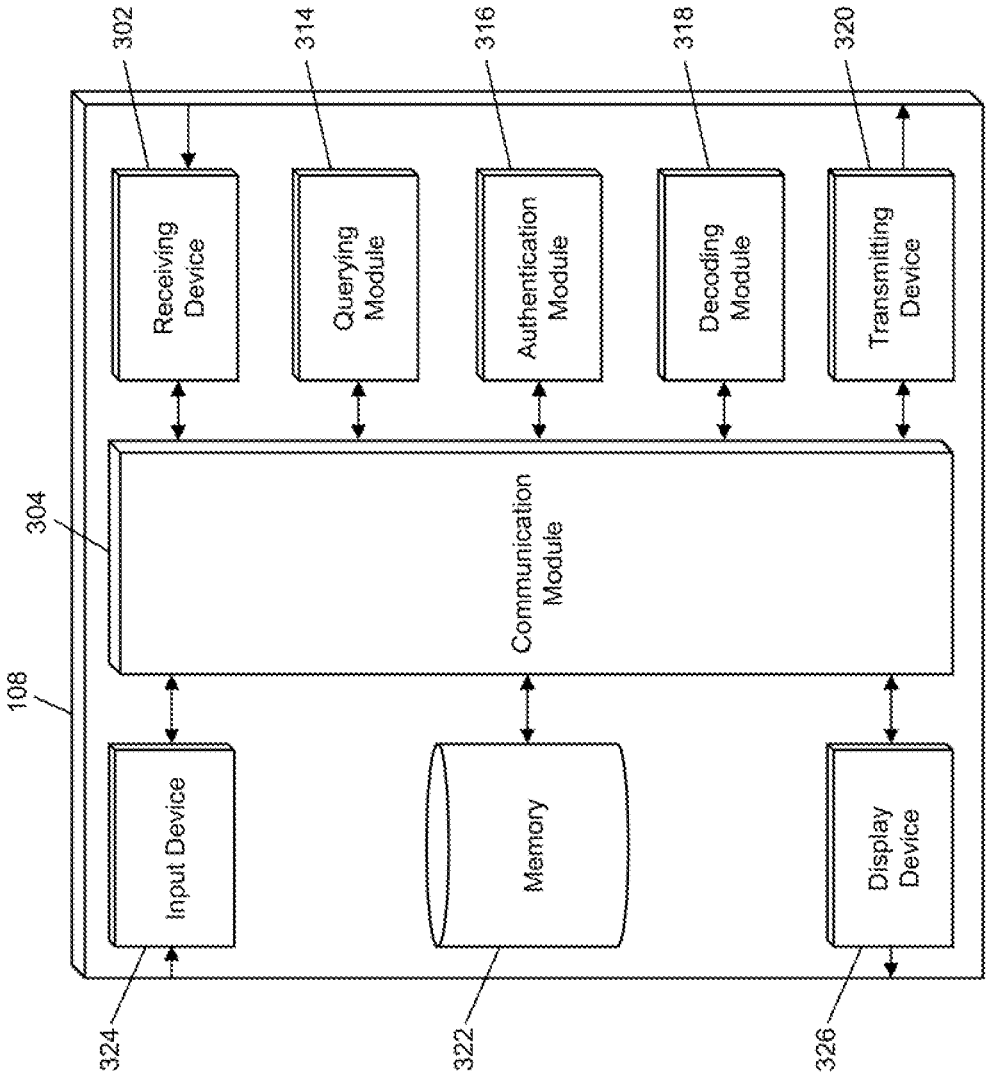

302
314
316
318
320
Receiving Device
Querying Module
Authentication Module
Decoding Module
Transmitting Device
304
Communication Module
108
Input Device
Memory
Display Device
324
322
326

FIG. 3

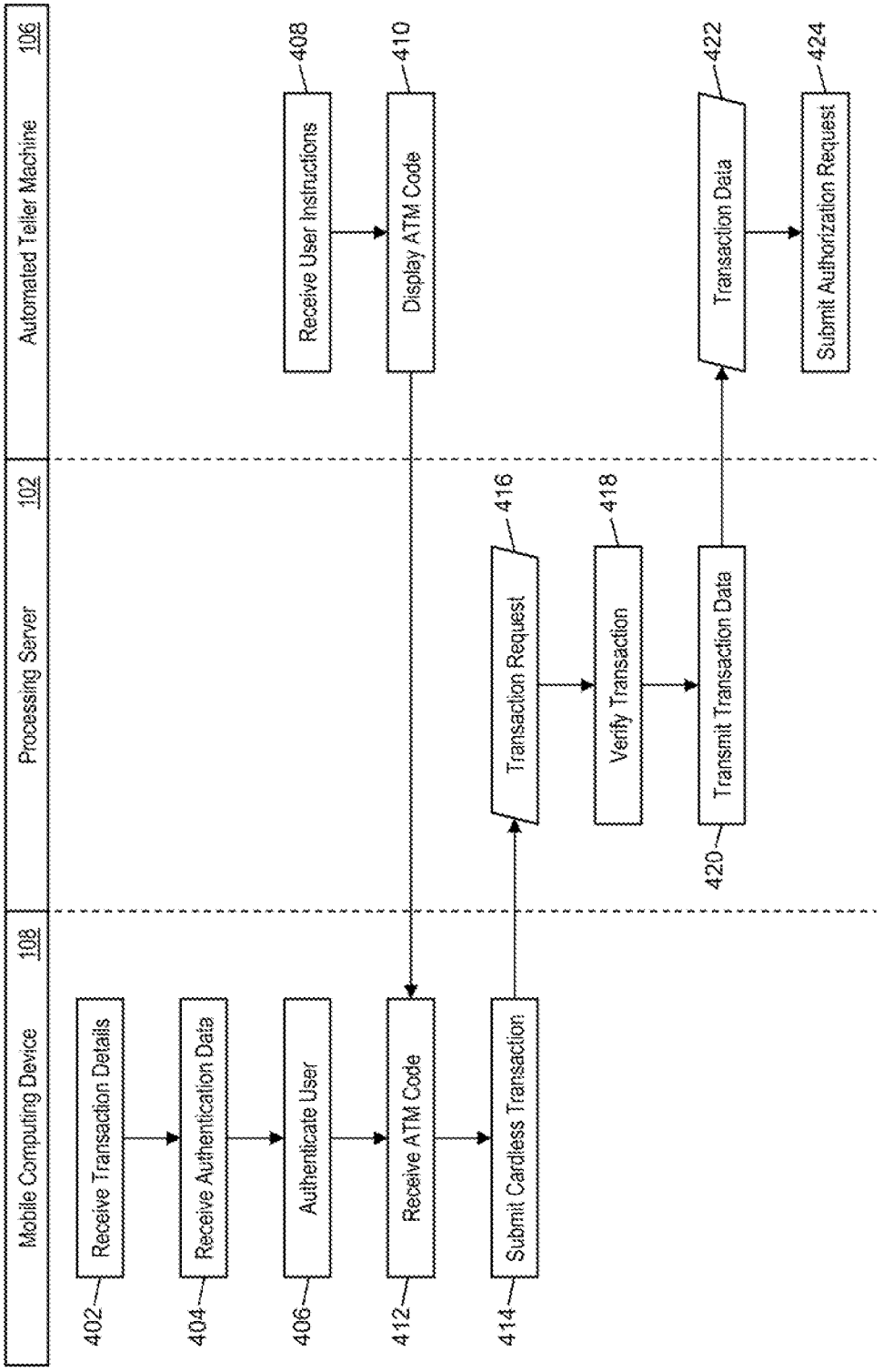

Mobile Computing Device 108
Processing Server 102
Automated Teller Machine 106
Receive Transaction Details
Receive Authentication Data
Authenticate User
Receive ATM Code
Submit Cardless Transaction
Transaction Request
Verify Transaction
Transmit Transaction Data
Receive User Instructions
Display ATM Code
Transaction Data
Submit Authorization Request
402
404
406
412
414
416
418
420
408
410
422
424

FIG. 4

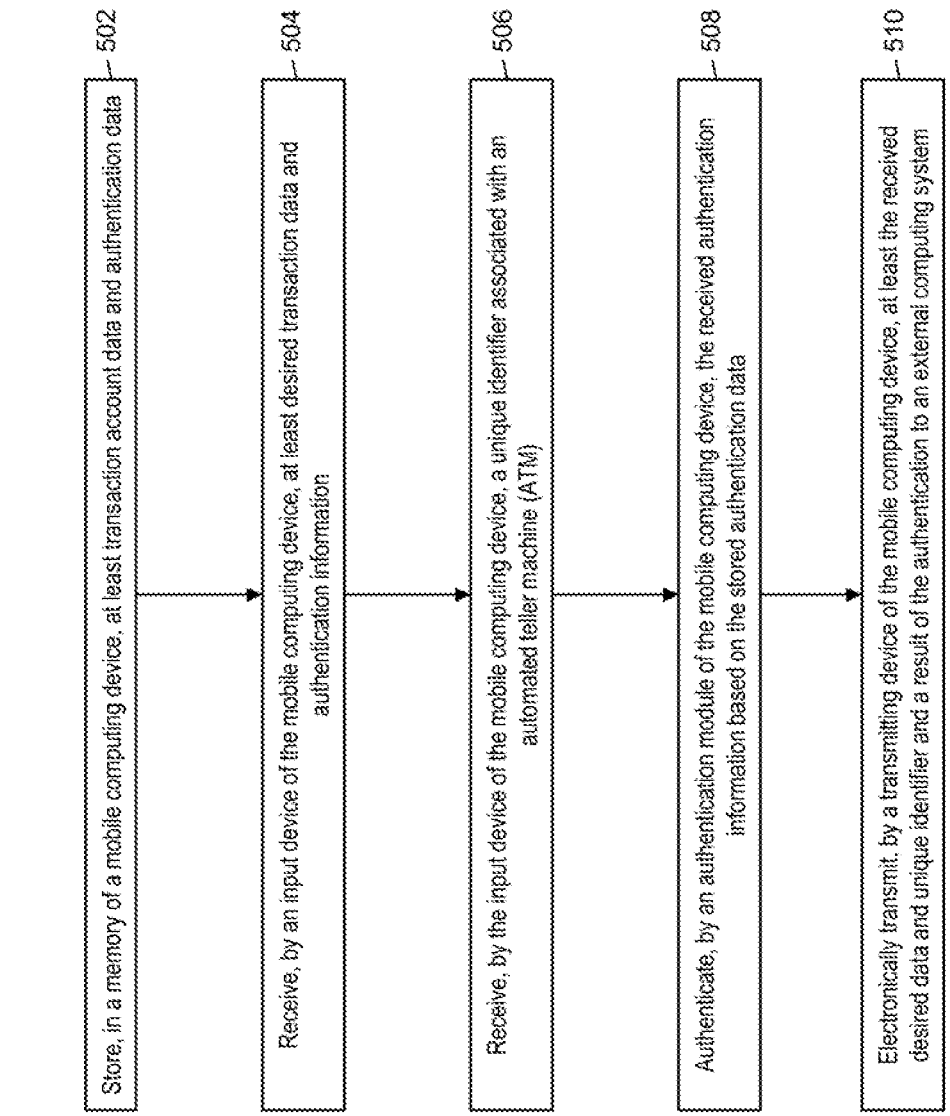

500
502
Store, in a memory of a mobile computing device, at least transaction account data and authentication data
504
Receive, by an input device of the mobile computing device, at least desired transaction data and authentication information
506
Receive, by the input device of the mobile computing device, a unique identifier associated with an automated teller machine (ATM)
508
Authenticate, by an authentication module of the mobile computing device, the received authentication information based on the stored authentication data
510
Electronically transmit, by a transmitting device of the mobile computing device, at least the received desired data and unique identifier and a result of the authentication to an external computing system

FIG. 5

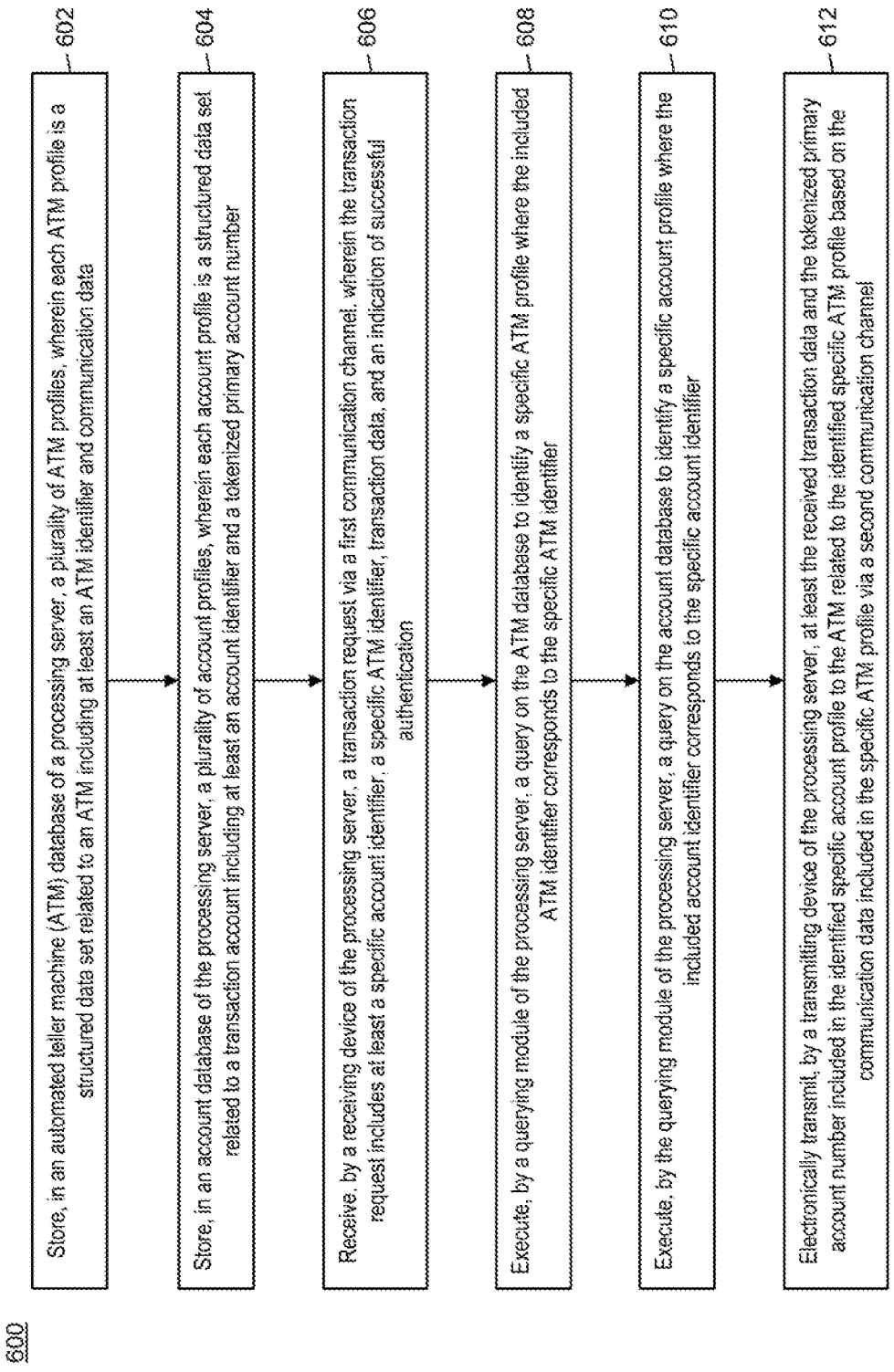

600
Store, in an automated teller machine (ATM) database of a processing server, a plurality of ATM profiles, wherein each ATM profile is a structured data set related to an ATM including at least an ATM identifier and communication data
602
Store, in an account database of the processing server, a plurality of account profiles, wherein each account profile is a structured data set related to a transaction account including at least an account identifier and a tokenized primary account number
604
Receive, by a receiving device of the processing server, a transaction request via a first communication channel, wherein the transaction request includes at least a specific account identifier, a specific ATM identifier, transaction data, and an indication of successful authentication
606
Execute, by a querying module of the processing server, a query on the ATM database to identify a specific ATM profile where the included ATM identifier corresponds to the specific ATM identifier
608
Execute, by the querying module of the processing server, a query on the account database to identify a specific account profile where the included account identifier corresponds to the specific account identifier
610
Electronically transmit, by a transmitting device of the processing server, at least the received transaction data and the tokenized primary account number included in the identified specific account profile to the ATM related to the identified specific ATM profile based on the communication data included in the specific ATM profile via a second communication channel
612

FIG. 6

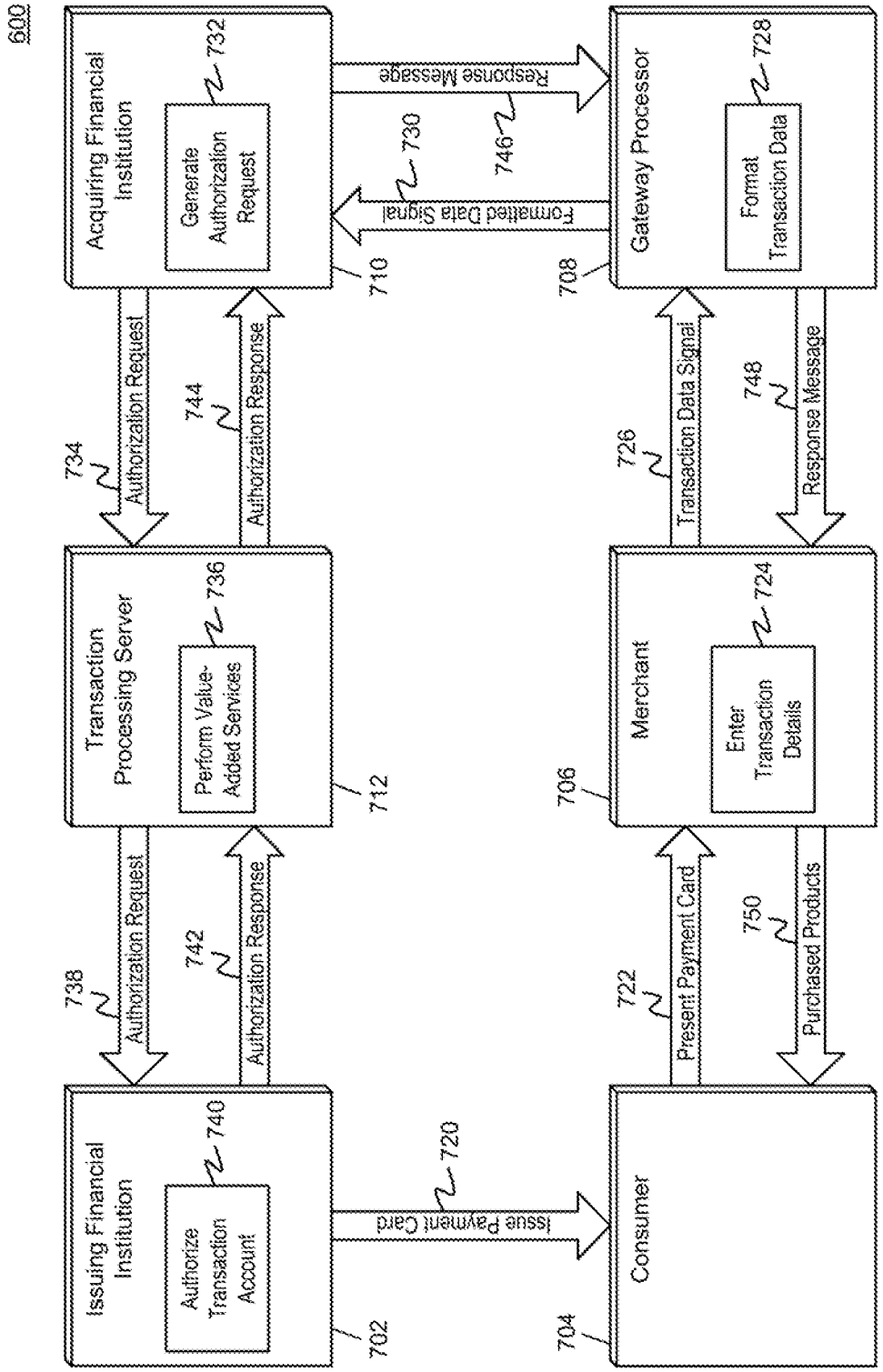

600
Acquiring Financial Institution
732
Generate Authorization Request
710
Response Message
730
746
Formatted Data Signal
Gateway Processor
728
Format Transaction Data
708
734
Authorization Request
744
Authorization Response
726
Transaction Data Signal
748
Response Message
Transaction Processing Server
736
Perform Value-Added Services
712
Merchant
724
Enter Transaction Details
706
738
Authorization Request
742
Authorization Response
722
Present Payment Card
750
Purchased Products
Issuing Financial Institution
740
Authorize Transaction Account
702
720
Issue Payment Card
Consumer
704

FIG. 7

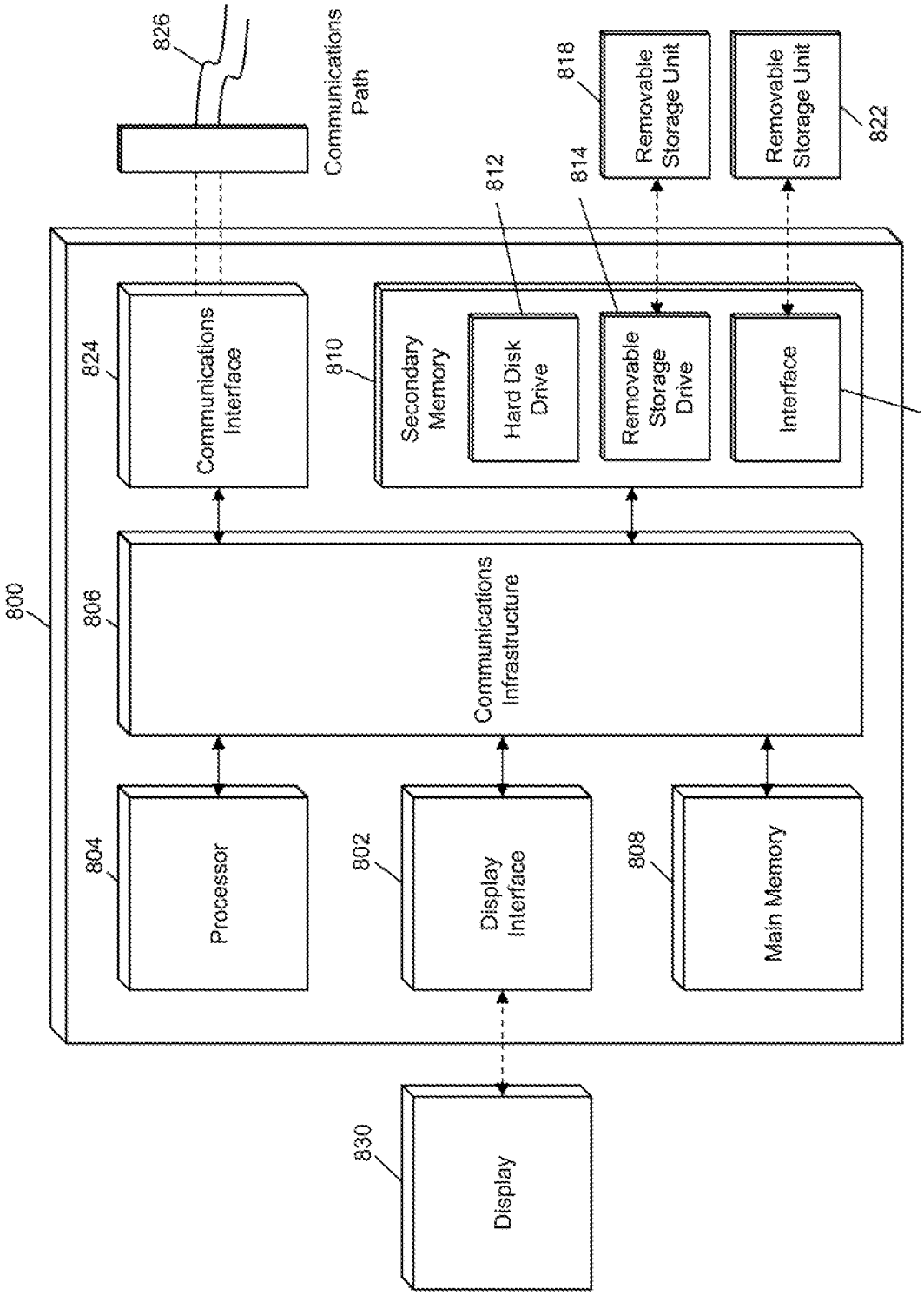

826
Communications Path
818
Removable Storage Unit
822
Removable Storage Unit
812
814
824
Communications Interface
810
Secondary Memory
Hard Disk Drive
Removable Storage Drive
Interface
820
800
806
Communications Infrastructure
804
Processor
802
Display Interface
808
Main Memory
830
Display

FIG. 8