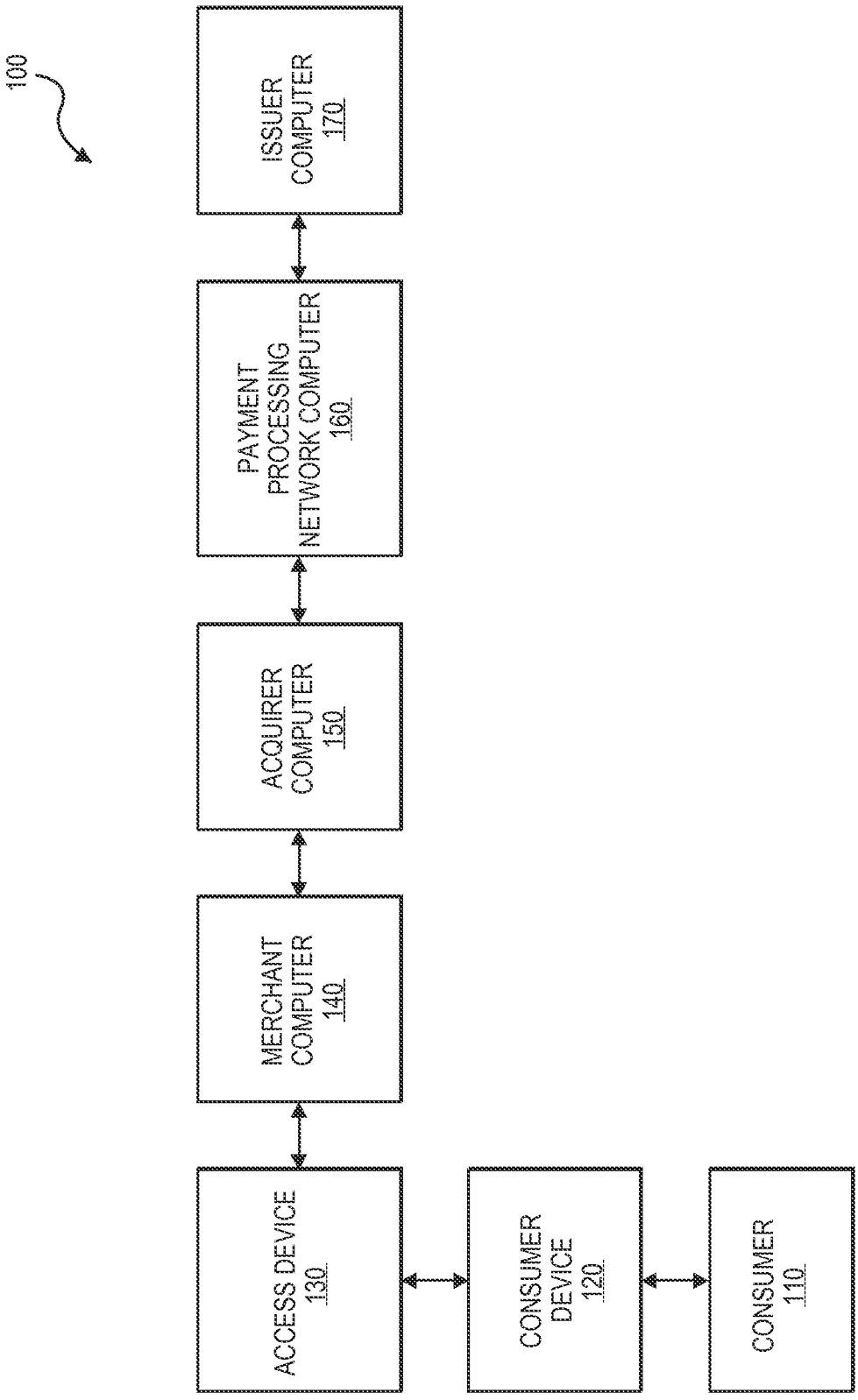

100
ISSUER COMPUTER 170
PAYMENT PROCESSING NETWORK COMPUTER 160
ACQUIRER COMPUTER 150
MERCHANT COMPUTER 140
ACCESS DEVICE 130
CONSUMER DEVICE 120
CONSUMER 110

FIG. 1

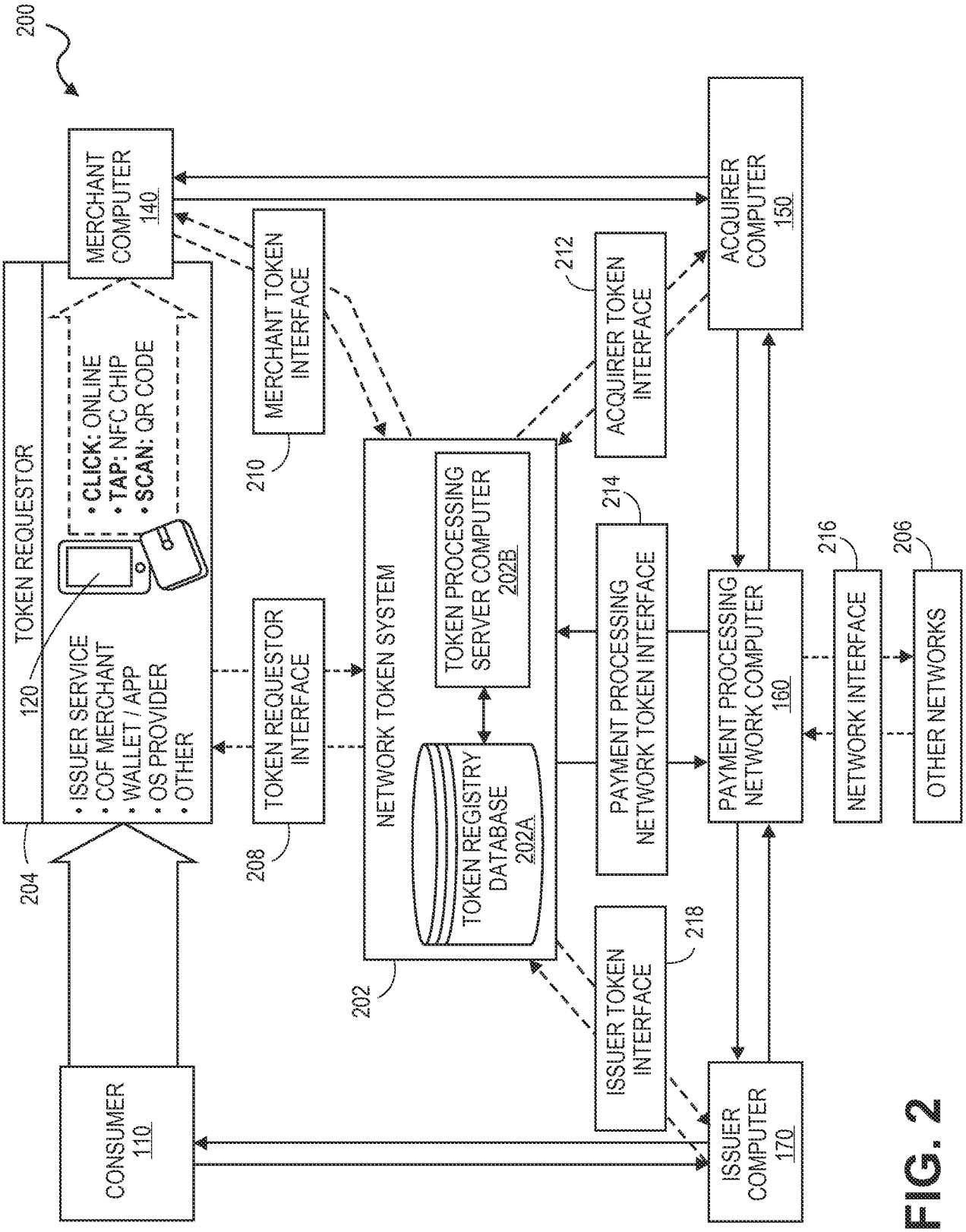

200
MERCHANT COMPUTER 140
ACQUIRER COMPUTER 150
TOKEN REQUESTOR
• ISSUER SERVICE
• COF MERCHANT
• WALLET / APP
• OS PROVIDER
• OTHER
• CLICK: ONLINE
• TAP: NFC CHIP
• SCAN: QR CODE
120
204
MERCHANT TOKEN INTERFACE
210
ACQUIRER TOKEN INTERFACE
212
TOKEN REQUESTOR INTERFACE
208
NETWORK TOKEN SYSTEM
202
TOKEN PROCESSING SERVER COMPUTER 202B
TOKEN REGISTRY DATABASE 202A
PAYMENT PROCESSING NETWORK TOKEN INTERFACE
214
PAYMENT PROCESSING NETWORK COMPUTER 160
216
NETWORK INTERFACE
206
OTHER NETWORKS
ISSUER TOKEN INTERFACE
218
CONSUMER 110
ISSUER COMPUTER 170

FIG. 2

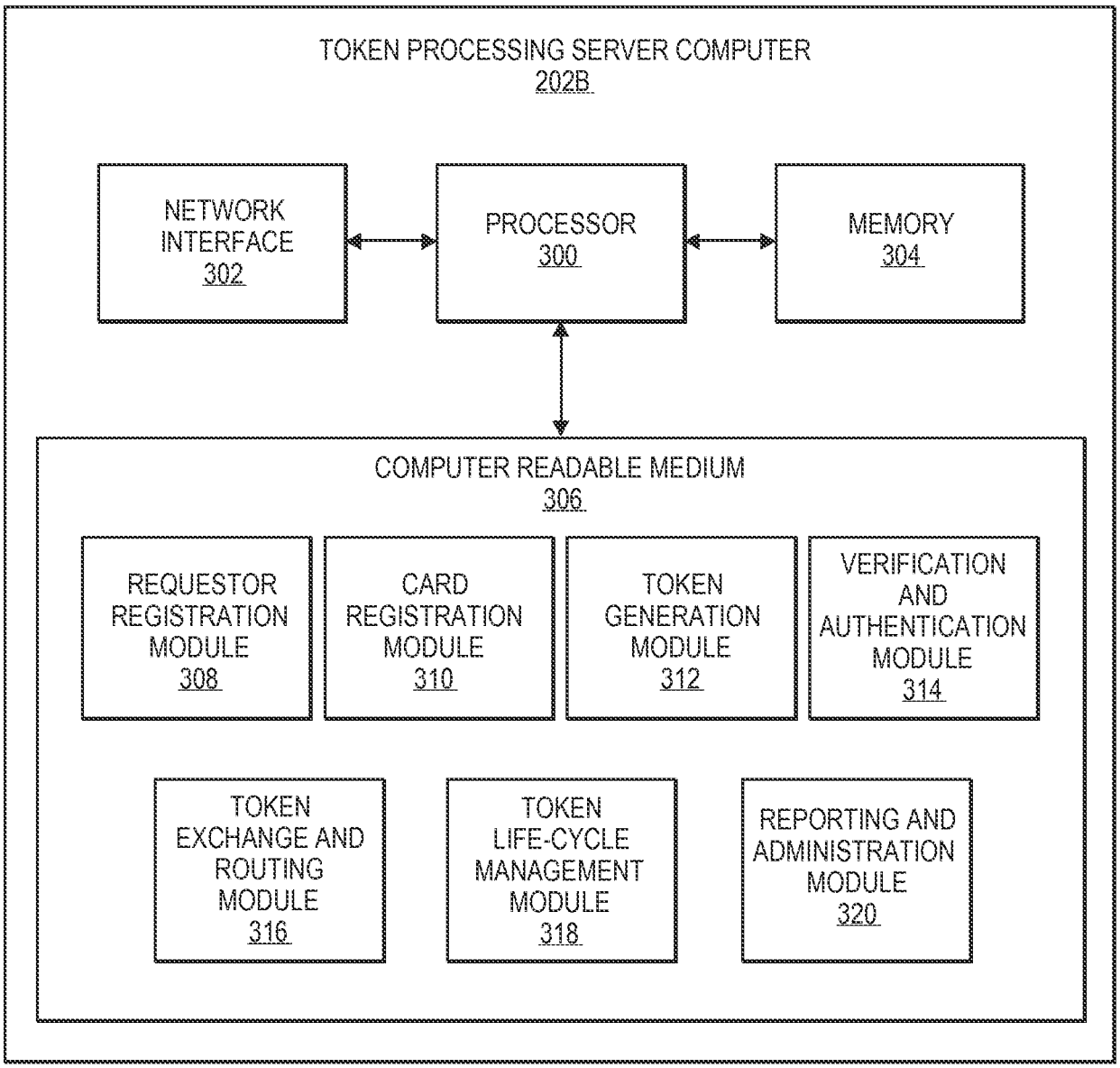

TOKEN PROCESSING SERVER COMPUTER
202B
NETWORK INTERFACE
302
PROCESSOR
300
MEMORY
304
COMPUTER READABLE MEDIUM
306
REQUESTOR REGISTRATION MODULE
308
CARD REGISTRATION MODULE
310
TOKEN GENERATION MODULE
312
VERIFICATION AND AUTHENTICATION MODULE
314
TOKEN EXCHANGE AND ROUTING MODULE
316
TOKEN LIFE-CYCLE MANAGEMENT MODULE
318
REPORTING AND ADMINISTRATION MODULE
320

FIG. 3


400
Token Registry Database Token Record
402
Token
4900 0000 0000 0001
404
Primary Account Number
4147 0900 0000 1234
406
Token Requestor Identifier
11 2345 6789
408
Token Presentment Mode
QR code
410
Token Type
Dynamic
412
Token Expiration Date
7/16/2014, 14:35:00
414
Merchant Restrictions
Merchant Category Code: 5111
416
Token Assurance Level
Issuer Authenticated
418
Token Timestamp
7/15/2014, 14:35:00
420
Token Status
Active
422
Consumer Account Details
Jane Doe, 123 Street, A city - 99998

FIG. 4

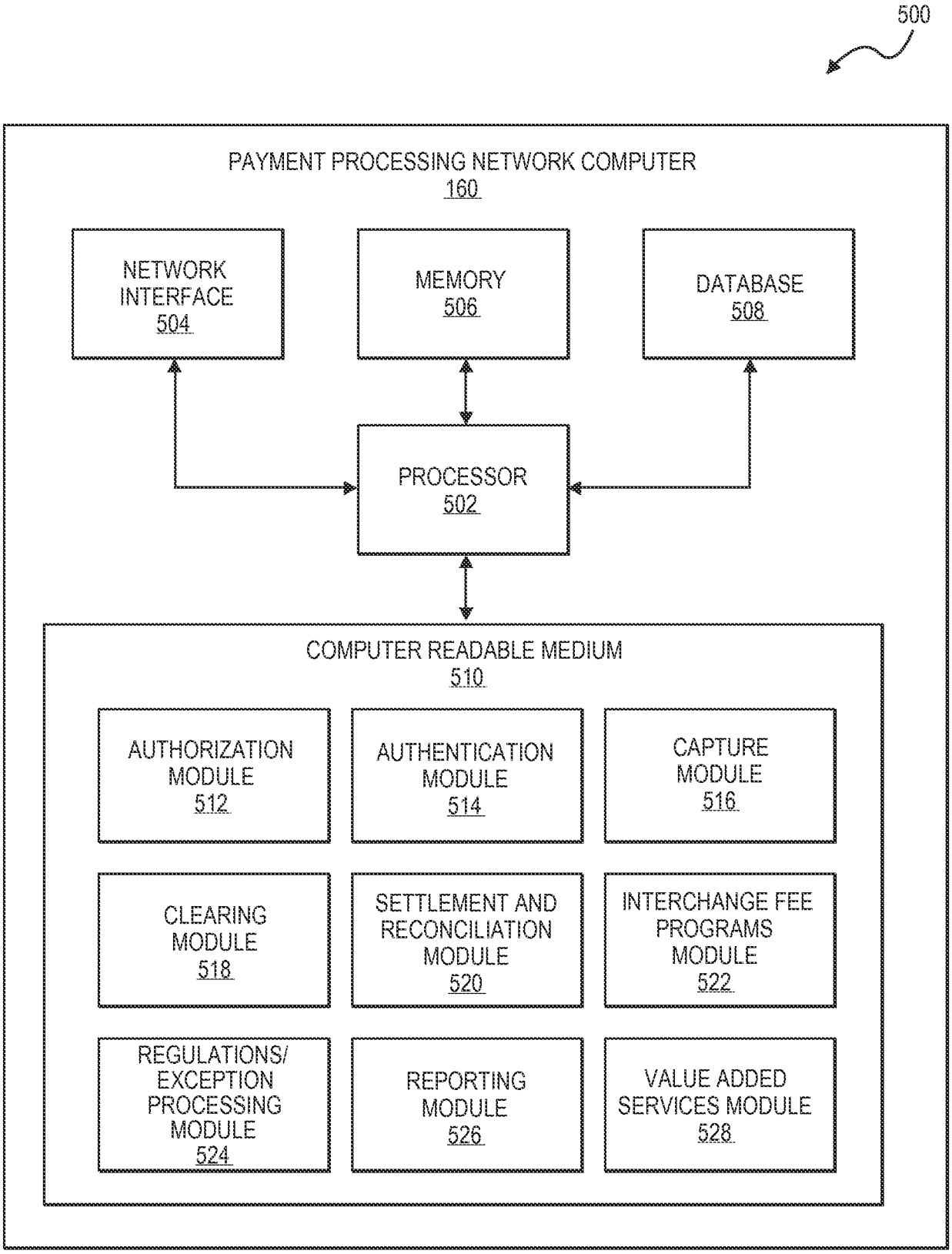
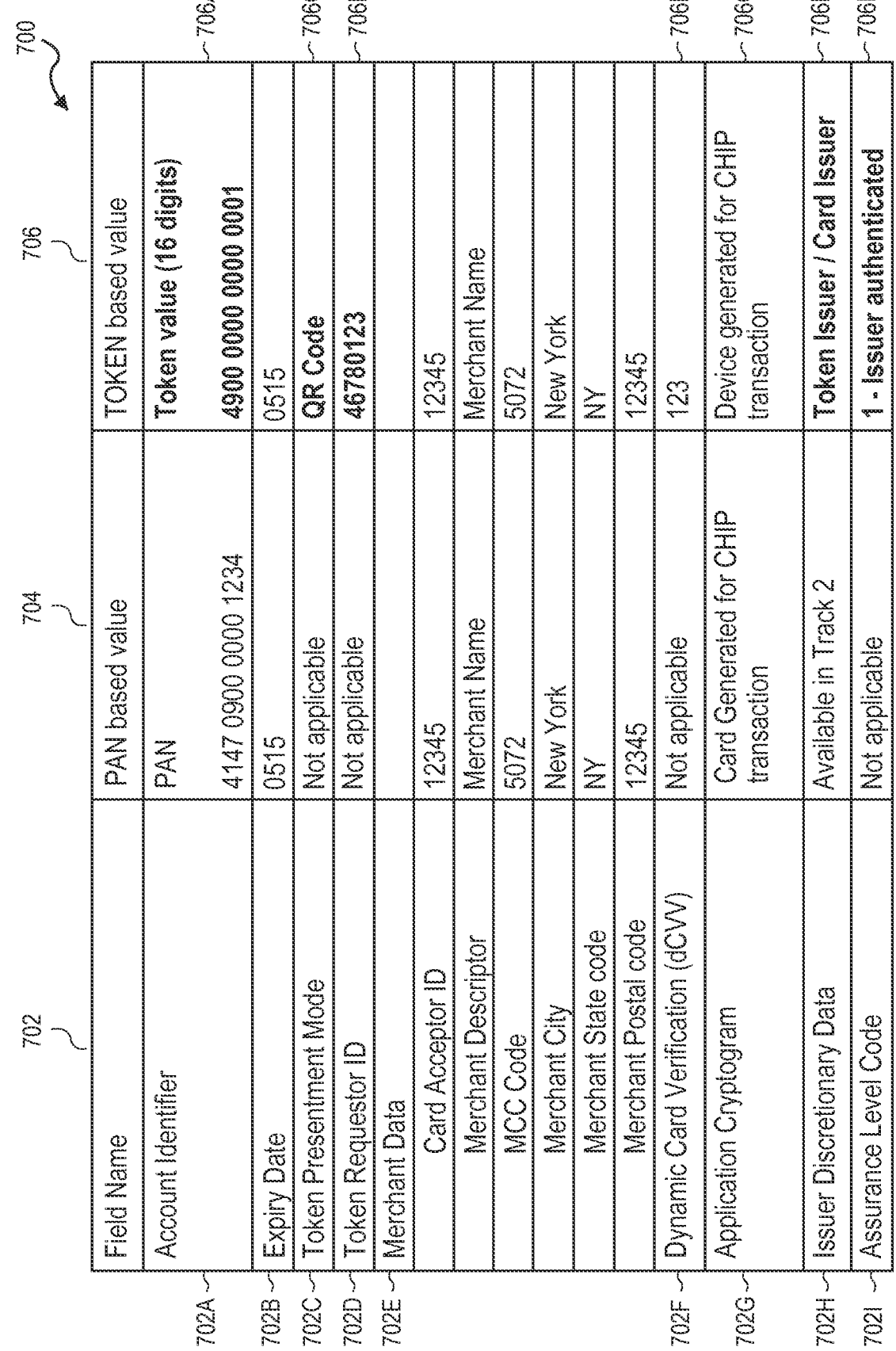

500
PAYMENT PROCESSING NETWORK COMPUTER
160
NETWORK INTERFACE
504
MEMORY
506
DATABASE
508
PROCESSOR
502
COMPUTER READABLE MEDIUM
510
AUTHORIZATION MODULE
512
AUTHENTICATION MODULE
514
CAPTURE MODULE
516
CLEARING MODULE
518
SETTLEMENT AND RECONCILIATION MODULE
520
INTERCHANGE FEE PROGRAMS MODULE
522
REGULATIONS/ EXCEPTION PROCESSING MODULE
524
REPORTING MODULE
526
VALUE ADDED SERVICES MODULE
528

FIG. 5

600

602 Token BIN Range	604 Issuer BIN	606 Network Token	608 PAN
49000000-49000001	414709	4900 0000 0000 0001	4147 0900 0000 1234
		4900 0000 7896 6543	4147 0900 0000 1234
		4900 0000 0000 0004	4147 0900 3254 8976
		4900 0001 9098 6401	4147 0900 1234 1234
49000002-49000004	478950	4900 0002 0000 0001	4789 5000 1234 1234
		4900 0003 0000 0001	4789 5000 1234 1234
		4900 0004 0000 0004	4789 5000 1234 1234
		4900 0004 0560 0333	4789 5000 9468 0347
55000000-55000002	518314	5500 0000 0000 0001	5183 1400 0000 2222
		5500 0001 0620 4621	5183 1400 0000 2222
		5500 0002 0000 0001	5183 1400 9840 4444
		5500 0002 8074 8643	5183 1400 5421 5032

FIG. 6



Field Name	PAN based value	TOKEN based value
Account Identifier	PAN 4147 0900 0000 1234	**Token value (16 digits)** **4900 0000 0000 0001**
Expiry Date	0515	0515
Token Presentment Mode	Not applicable	**QR Code**
Token Requestor ID	Not applicable	**46780123**
Merchant Data		
Card Acceptor ID	12345	12345
Merchant Descriptor	Merchant Name	Merchant Name
MCC Code	5072	5072
Merchant City	New York	New York
Merchant State code	NY	NY
Merchant Postal code	12345	12345
Dynamic Card Verification (dCVV)	Not applicable	123
Application Cryptogram	Card Generated for CHIP transaction	Device generated for CHIP transaction
Issuer Discretionary Data	Available in Track 2	**Token Issuer / Card Issuer**
Assurance Level Code	Not applicable	**1 - Issuer authenticated**

FIG. 7

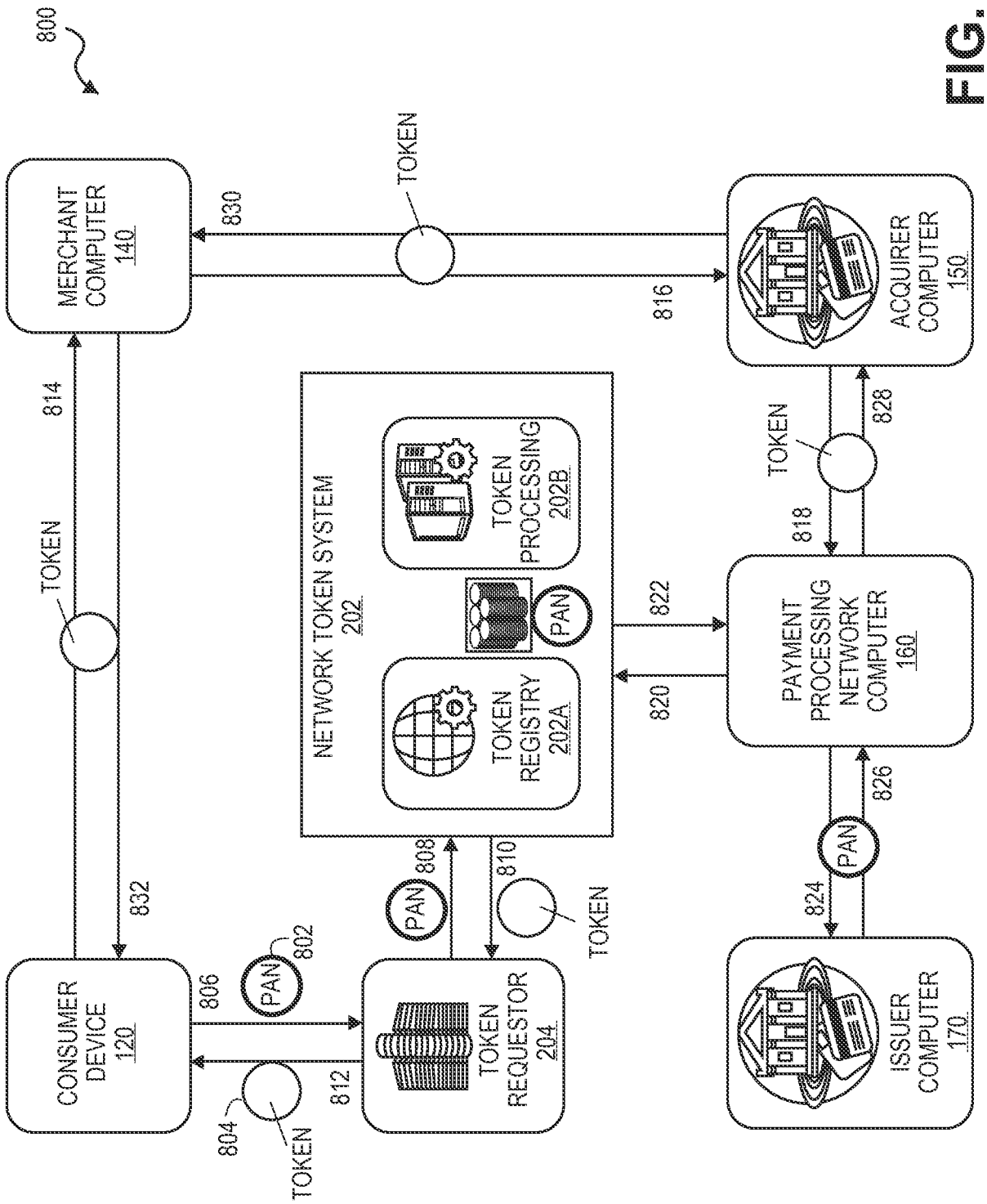

800
MERCHANT COMPUTER 140
CONSUMER DEVICE 120
ACQUIRER COMPUTER 150
PAYMENT PROCESSING NETWORK COMPUTER 160
ISSUER COMPUTER 170
NETWORK TOKEN SYSTEM 202
TOKEN REGISTRY 202A
TOKEN PROCESSING 202B
TOKEN REQUESTOR 204
TOKEN
PAN
802
804
806
808
810
812
814
816
818
820
822
824
826
828
830
832

FIG. 8

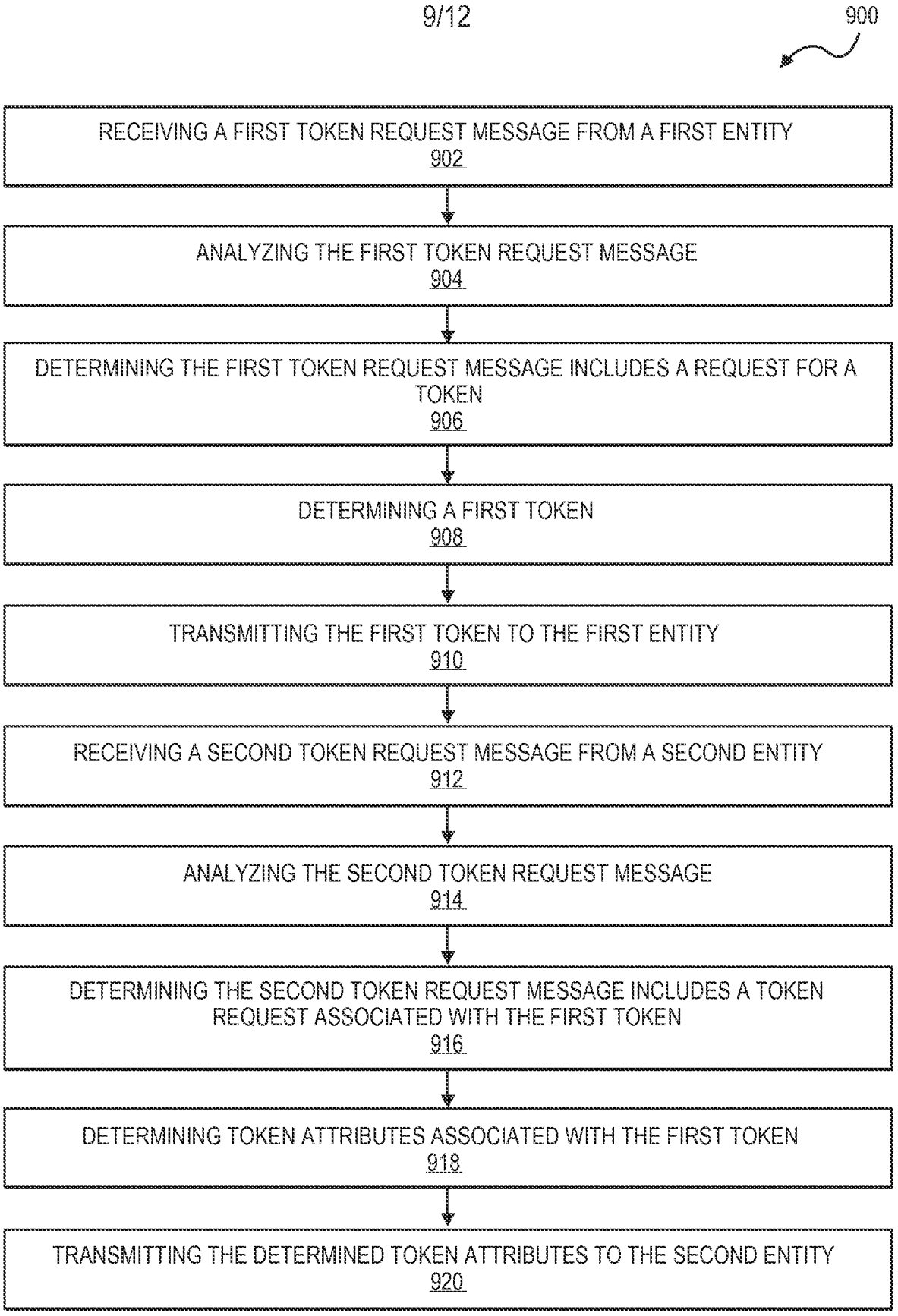

900
RECEIVING A FIRST TOKEN REQUEST MESSAGE FROM A FIRST ENTITY
902
ANALYZING THE FIRST TOKEN REQUEST MESSAGE
904
DETERMINING THE FIRST TOKEN REQUEST MESSAGE INCLUDES A REQUEST FOR A TOKEN
906
DETERMINING A FIRST TOKEN
908
TRANSMITTING THE FIRST TOKEN TO THE FIRST ENTITY
910
RECEIVING A SECOND TOKEN REQUEST MESSAGE FROM A SECOND ENTITY
912
ANALYZING THE SECOND TOKEN REQUEST MESSAGE
914
DETERMINING THE SECOND TOKEN REQUEST MESSAGE INCLUDES A TOKEN REQUEST ASSOCIATED WITH THE FIRST TOKEN
916
DETERMINING TOKEN ATTRIBUTES ASSOCIATED WITH THE FIRST TOKEN
918
TRANSMITTING THE DETERMINED TOKEN ATTRIBUTES TO THE SECOND ENTITY
920

FIG. 9

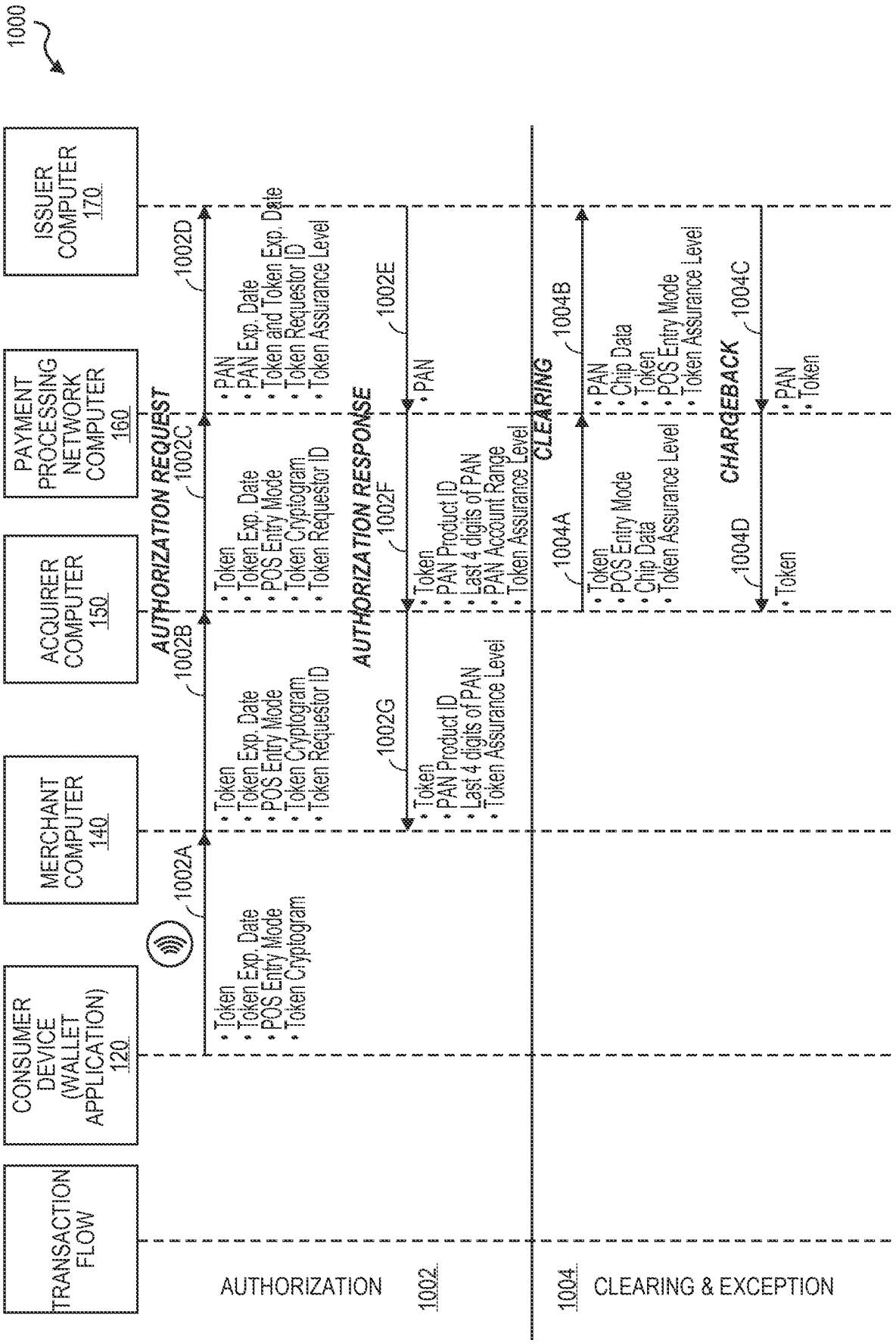

1000
TRANSACTION FLOW
CONSUMER DEVICE (WALLET APPLICATION) 120
MERCHANT COMPUTER 140
ACQUIRER COMPUTER 150
PAYMENT PROCESSING NETWORK COMPUTER 160
ISSUER COMPUTER 170
1002A
AUTHORIZATION REQUEST
1002B
1002C
1002D
AUTHORIZATION RESPONSE
1002E
1002F
1002G
CLEARING
1004A
1004B
CHARGEBACK
1004C
1004D
• Token
• Token Exp. Date
• POS Entry Mode
• Token Cryptogram
• Token Requestor ID
• PAN
• PAN Exp. Date
• Token and Token Exp. Date
• Token Requestor ID
• Token Assurance Level
• PAN Product ID
• Last 4 digits of PAN
• PAN Account Range
• Chip Data
1002 AUTHORIZATION
1004 CLEARING & EXCEPTION
NFC POINT-OF-SALE TRANSACTION

FIG. 10

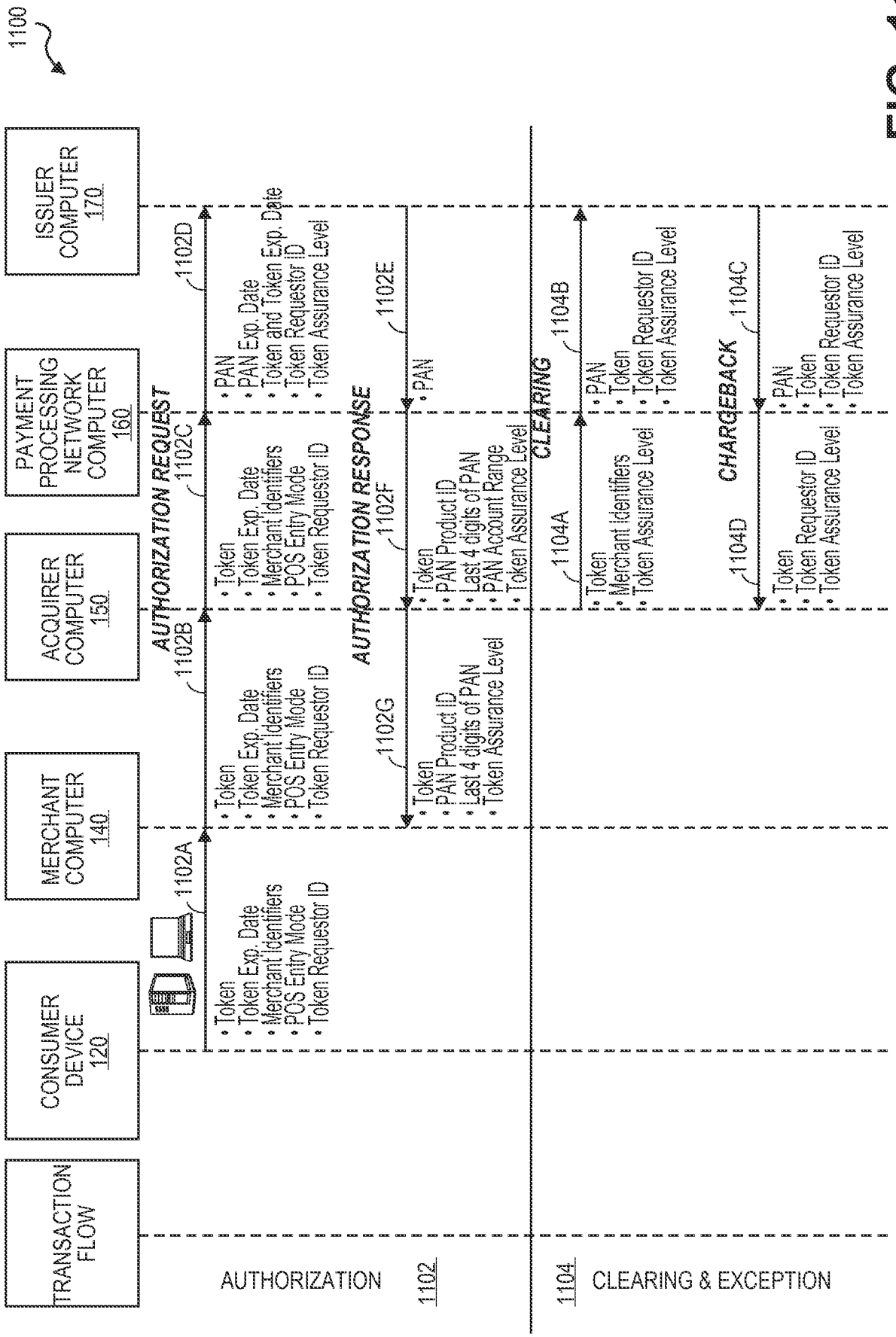

1100
TRANSACTION FLOW
CONSUMER DEVICE 120
MERCHANT COMPUTER 140
ACQUIRER COMPUTER 150
PAYMENT PROCESSING NETWORK COMPUTER 160
ISSUER COMPUTER 170
1102A
AUTHORIZATION REQUEST
1102B
1102C
1102D
AUTHORIZATION RESPONSE
1102E
1102F
1102G
CLEARING
1104A
1104B
CHARGEBACK
1104C
1104D
• Token
• Token Exp. Date
• Merchant Identifiers
• POS Entry Mode
• Token Requestor ID
• PAN
• PAN Exp. Date
• Token and Token Exp. Date
• Token Assurance Level
• PAN Product ID
• Last 4 digits of PAN
• PAN Account Range
1102 AUTHORIZATION
1104 CLEARING & EXCEPTION
CARD-ON-FILE/eCOMMERCE TRANSACTION

FIG. 11

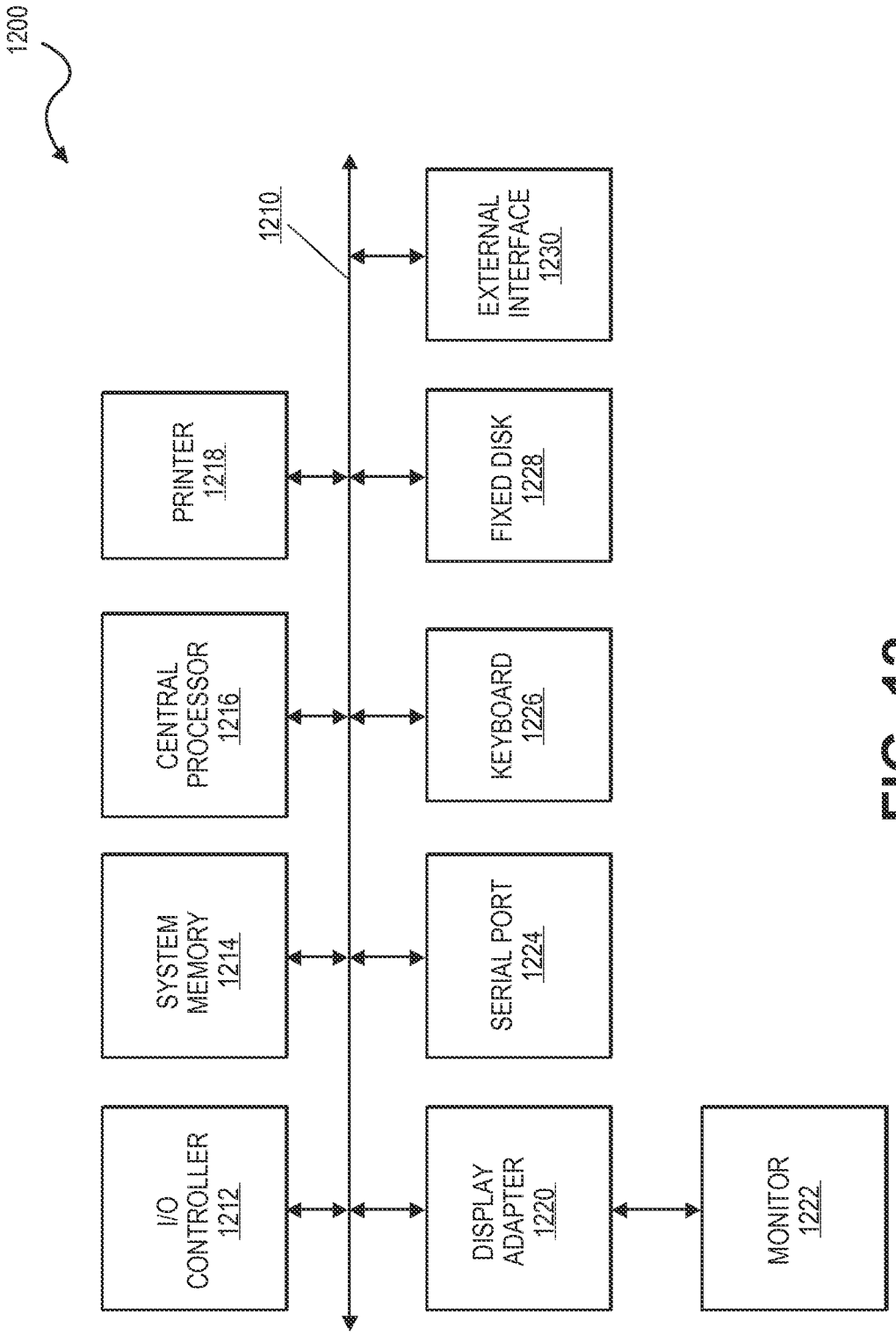

1200
1210
I/O CONTROLLER 1212
SYSTEM MEMORY 1214
CENTRAL PROCESSOR 1216
PRINTER 1218
DISPLAY ADAPTER 1220
MONITOR 1222
SERIAL PORT 1224
KEYBOARD 1226
FIXED DISK 1228
EXTERNAL INTERFACE 1230

FIG. 12