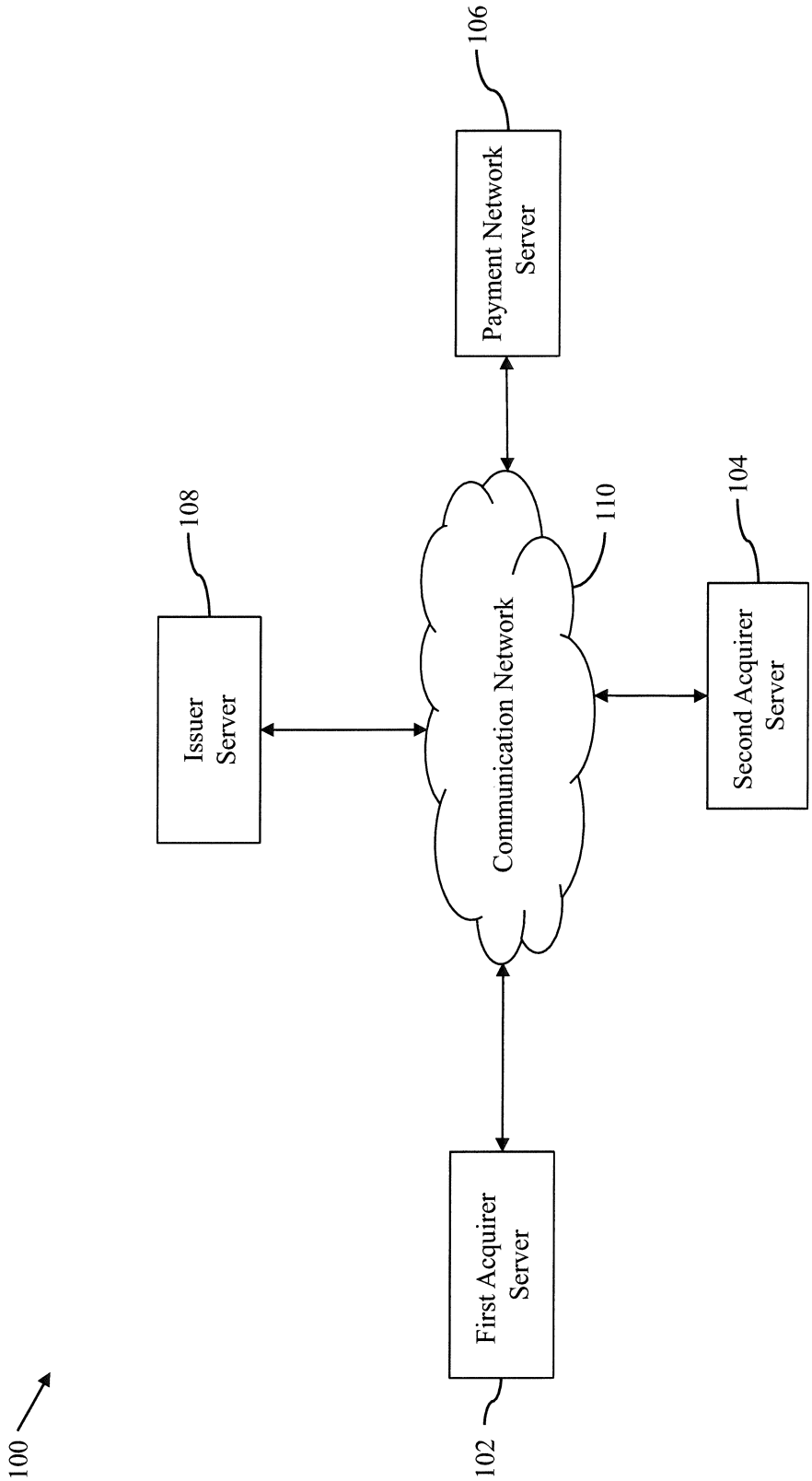
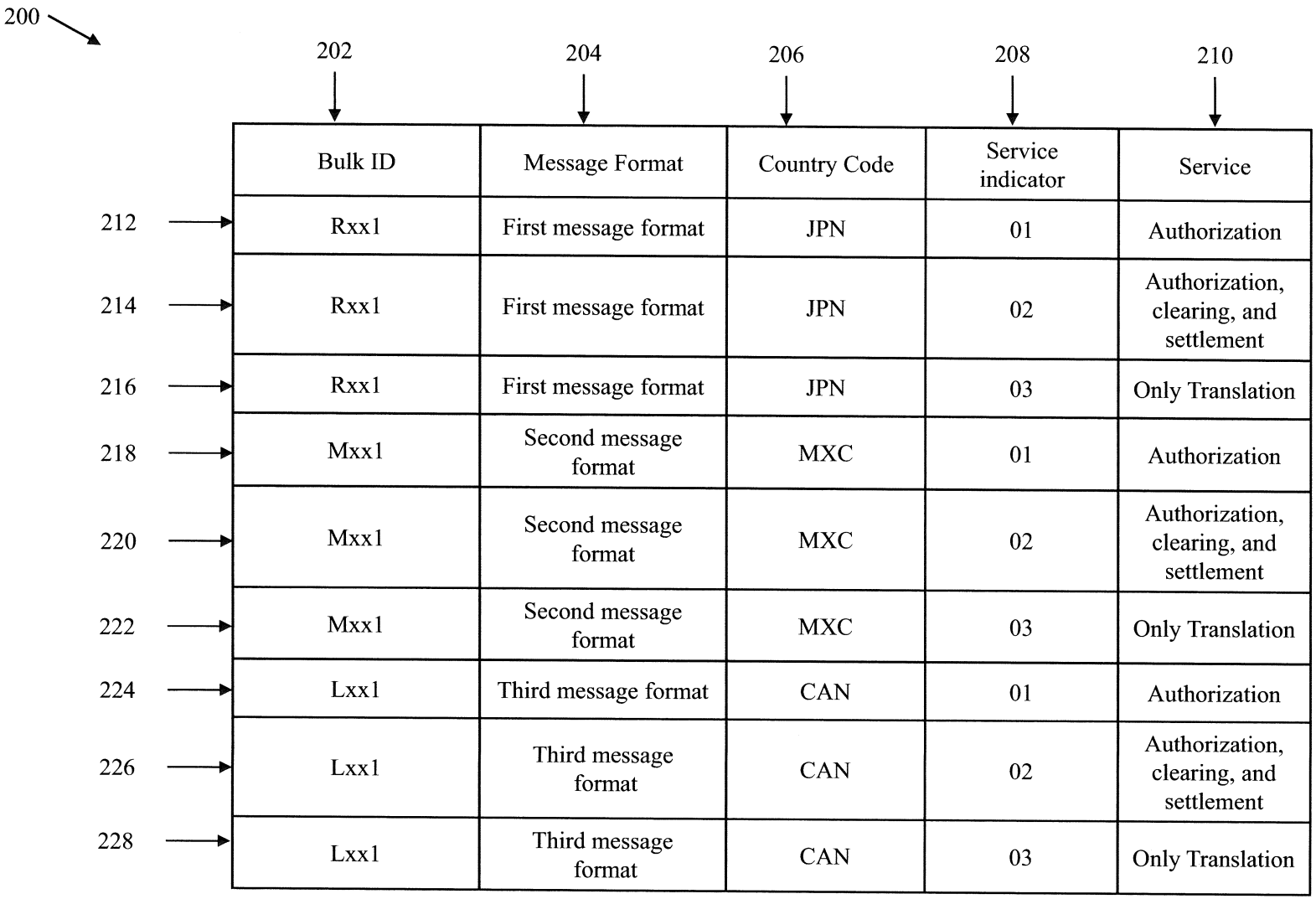

100
102
First Acquirer Server
104
Second Acquirer Server
106
Payment Network Server
108
Issuer Server
110
Communication Network

FIG. 1



Bulk ID	Message Format	Country Code	Service indicator	Service
Rxx1	First message format	JPN	01	Authorization
Rxx1	First message format	JPN	02	Authorization, clearing, and settlement
Rxx1	First message format	JPN	03	Only Translation
Mxx1	Second message format	MXC	01	Authorization
Mxx1	Second message format	MXC	02	Authorization, clearing, and settlement
Mxx1	Second message format	MXC	03	Only Translation
Lxx1	Third message format	CAN	01	Authorization
Lxx1	Third message format	CAN	02	Authorization, clearing, and settlement
Lxx1	Third message format	CAN	03	Only Translation

FIG. 2

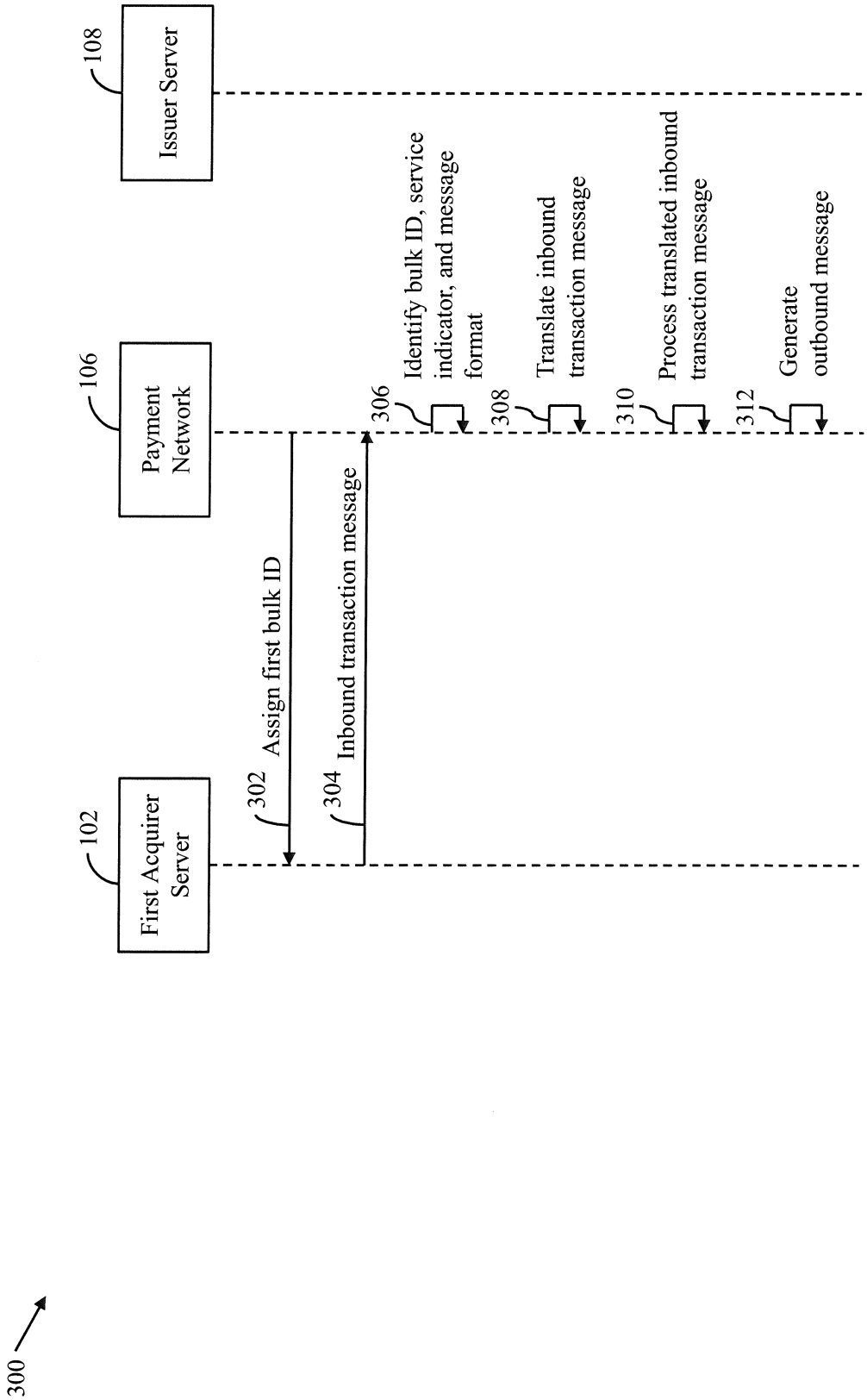

300
First Acquirer Server
102
Payment Network
106
Issuer Server
108
302
Assign first bulk ID
304
Inbound transaction message
306
Identify bulk ID, service indicator, and message format
308
Translate inbound transaction message
310
Process translated inbound transaction message
312
Generate outbound message

FIG. 3A

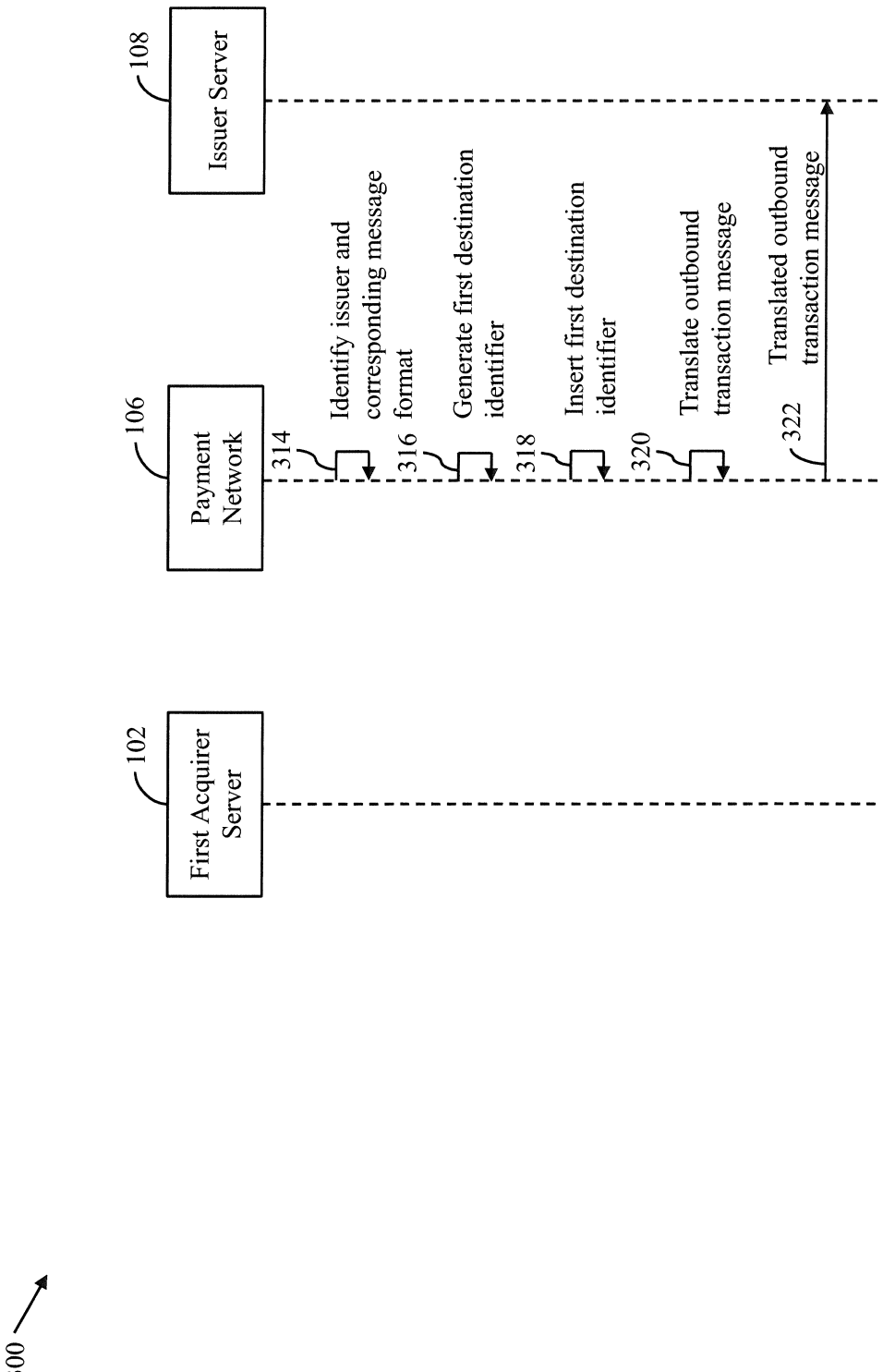

300
First Acquirer Server
102
Payment Network
106
Issuer Server
108
314
Identify issuer and corresponding message format
316
Generate first destination identifier
318
Insert first destination identifier
320
Translate outbound transaction message
322
Translated outbound transaction message

FIG. 3B

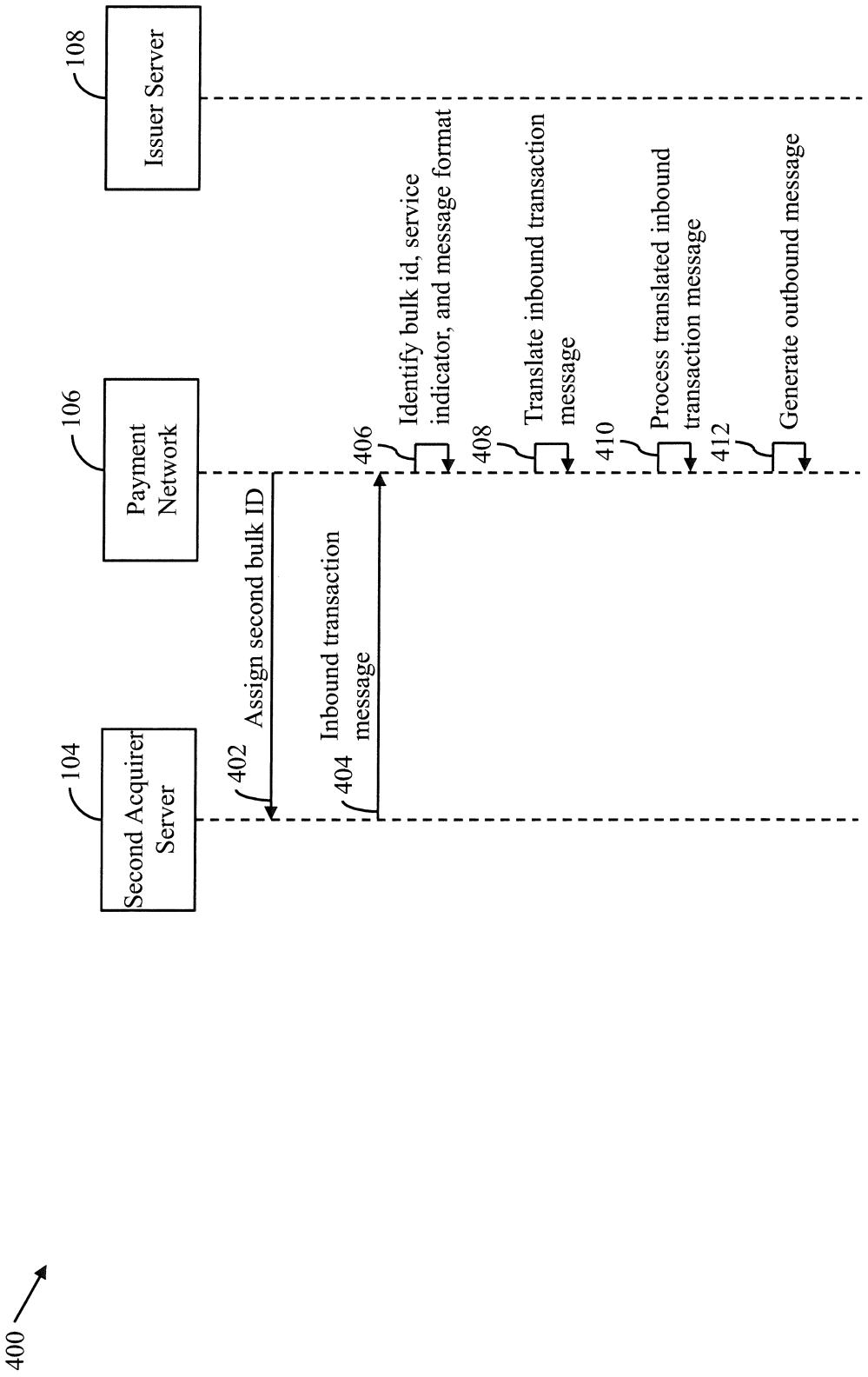

400
Second Acquirer Server
104
Payment Network
106
Issuer Server
108
Assign second bulk ID
402
Inbound transaction message
404
Identify bulk id, service indicator, and message format
406
Translate inbound transaction message
408
Process translated inbound transaction message
410
Generate outbound message
412

FIG. 4A

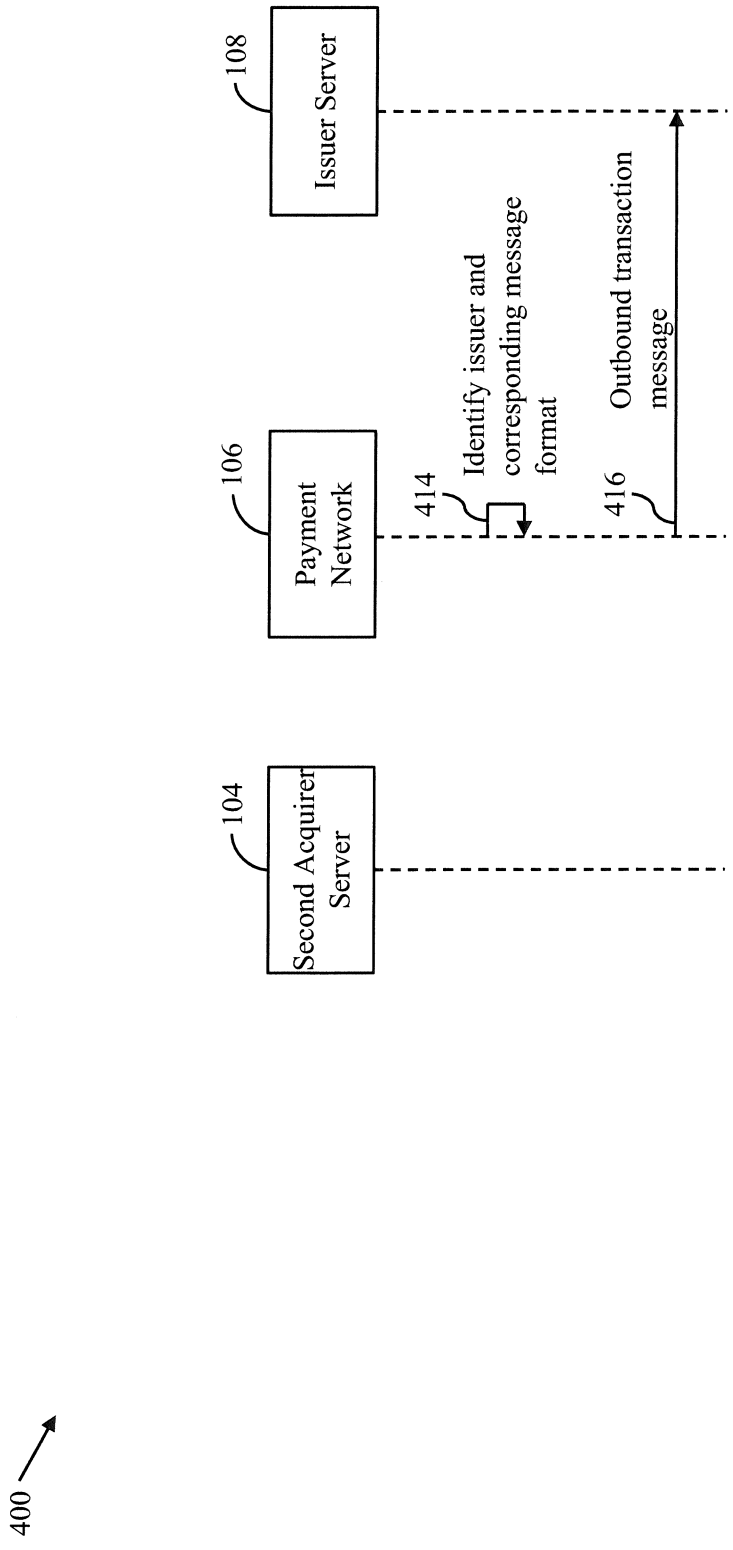

400
104
Second Acquirer Server
106
Payment Network
108
Issuer Server
414
Identify issuer and corresponding message format
416
Outbound transaction message

FIG. 4B

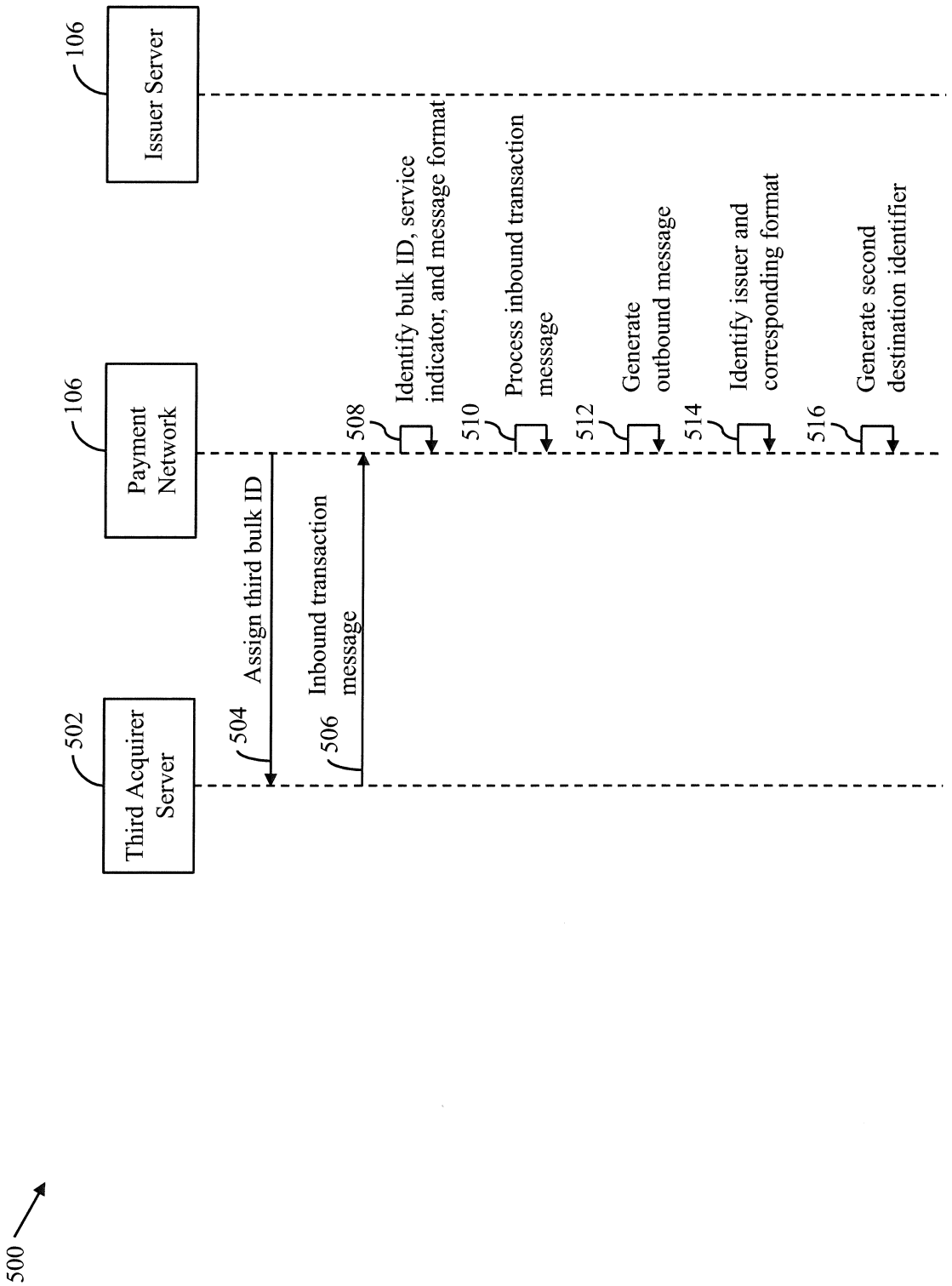

500
502
Third Acquirer Server
106
Payment Network
106
Issuer Server
504
Assign third bulk ID
506
Inbound transaction message
508
Identify bulk ID, service indicator, and message format
510
Process inbound transaction message
512
Generate outbound message
514
Identify issuer and corresponding format
516
Generate second destination identifier

FIG. 5A

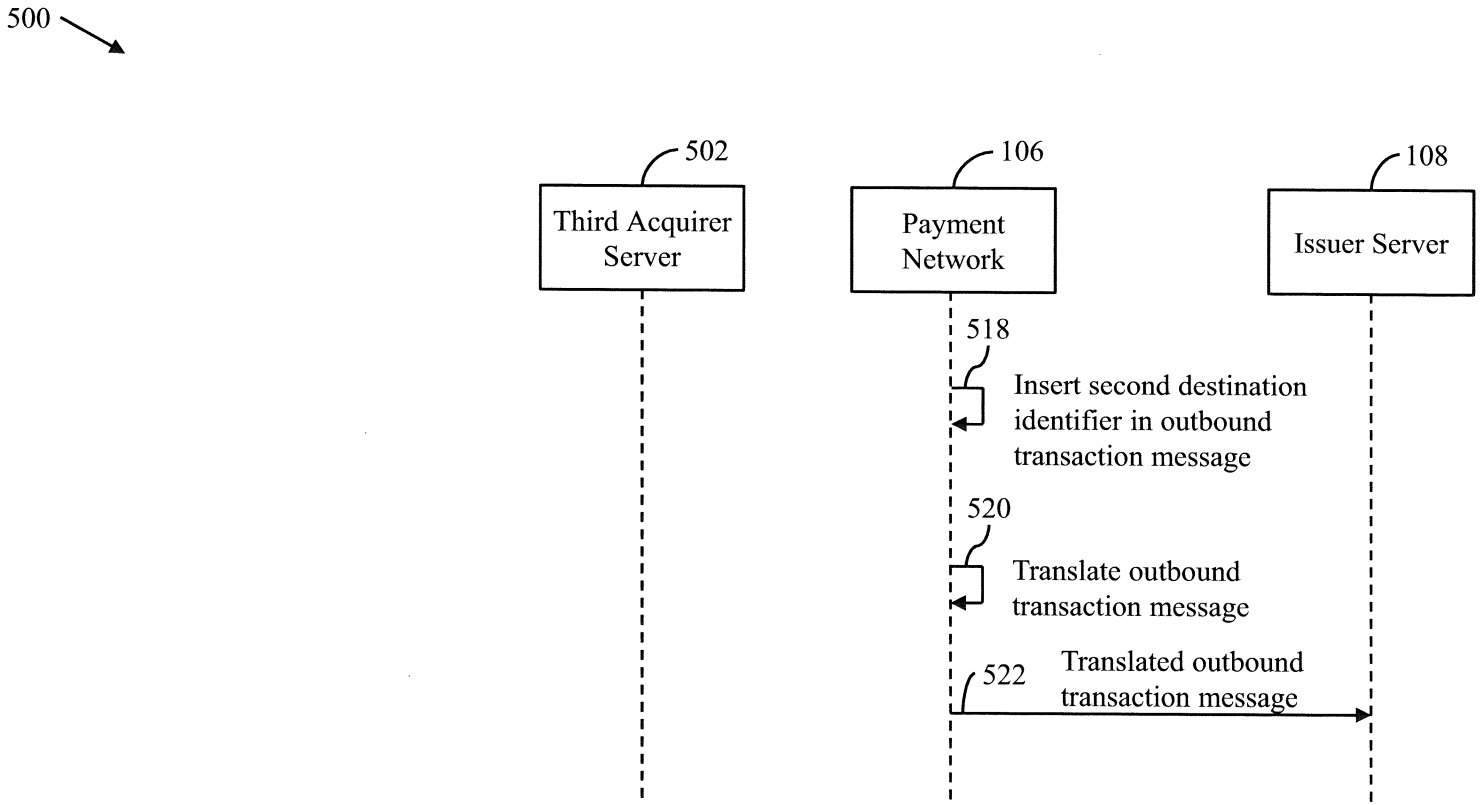

500
502
Third Acquirer Server
106
Payment Network
108
Issuer Server
518
Insert second destination identifier in outbound transaction message
520
Translate outbound transaction message
522
Translated outbound transaction message

FIG. 5B

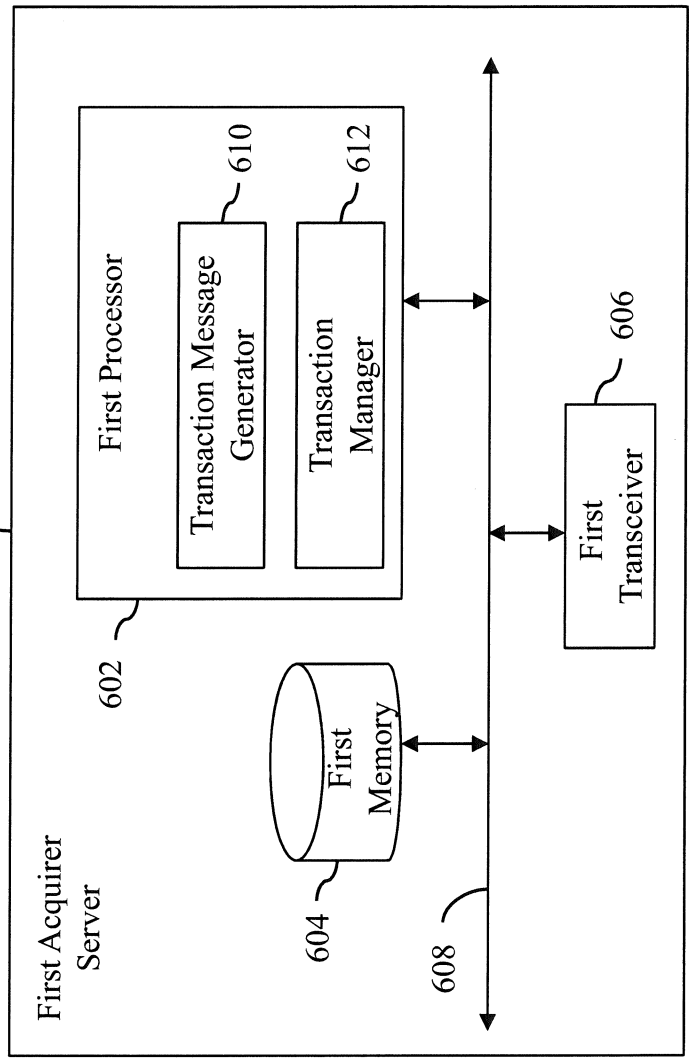

102
First Acquirer Server
First Processor
602
Transaction Message Generator
610
Transaction Manager
612
First Memory
604
First Transceiver
606
608

FIG. 6

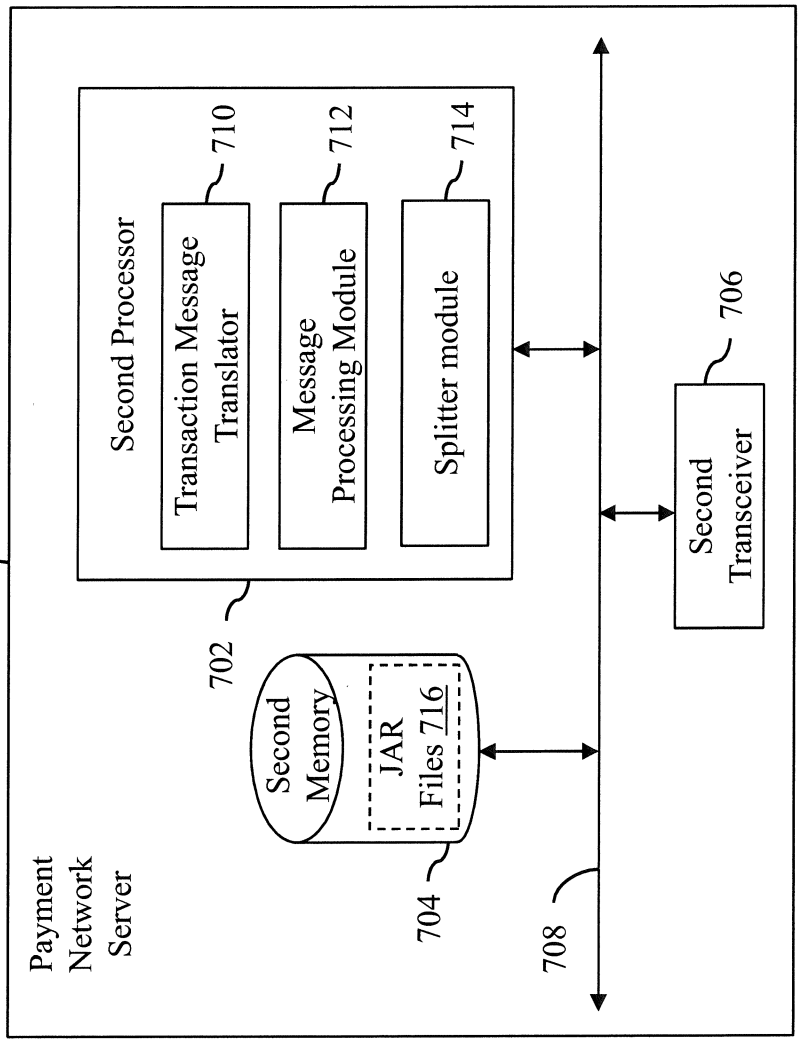

106
Payment Network Server
Second Processor
Transaction Message Translator
710
Message Processing Module
712
Splitter module
714
702
Second Memory
JAR Files 716
704
708
Second Transceiver
706

FIG. 7

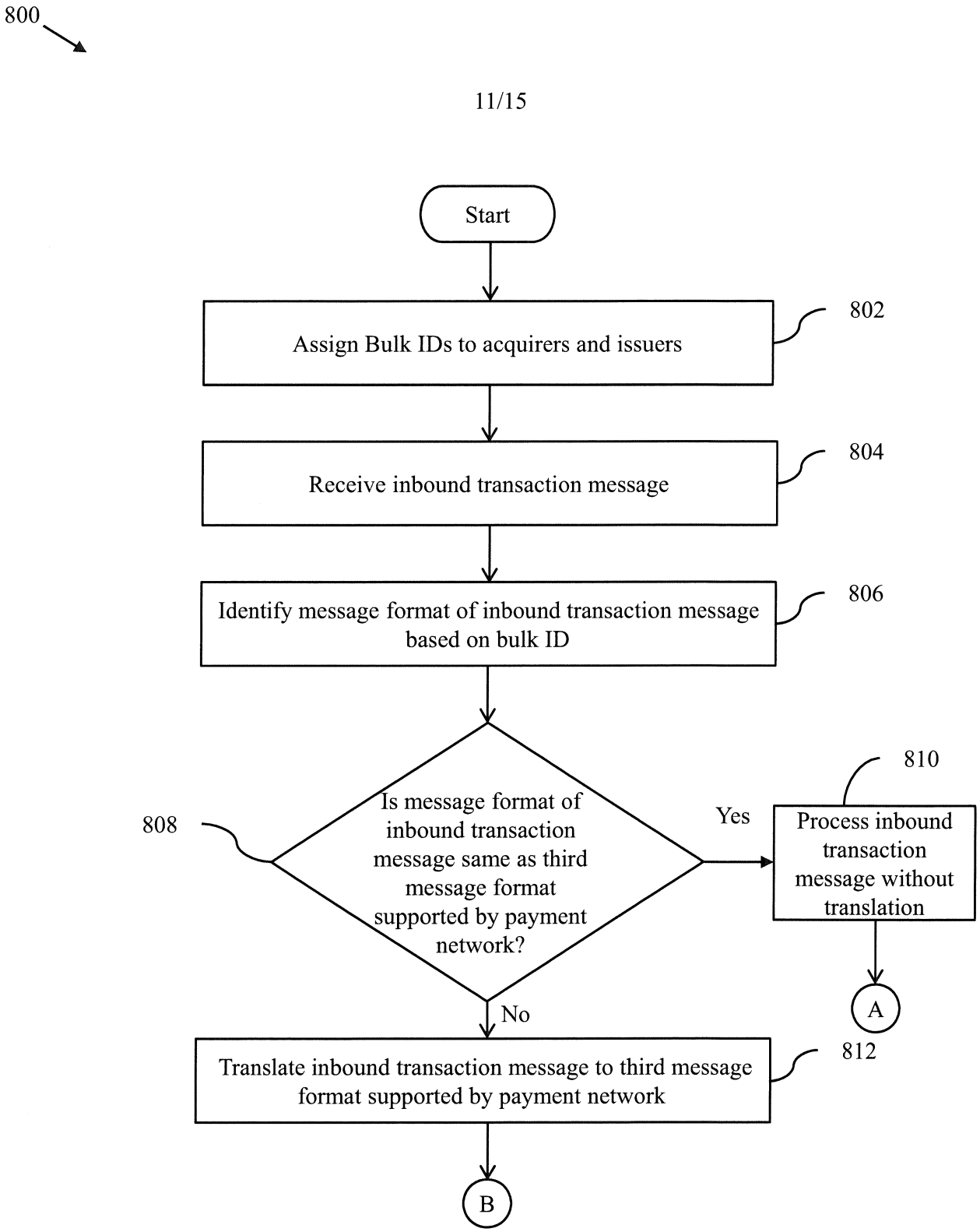

800
Start
Assign Bulk IDs to acquirers and issuers
802
Receive inbound transaction message
804
Identify message format of inbound transaction message based on bulk ID
806
Is message format of inbound transaction message same as third message format supported by payment network?
808
Yes
Process inbound transaction message without translation
810
A
No
Translate inbound transaction message to third message format supported by payment network
812
B

FIG. 8A

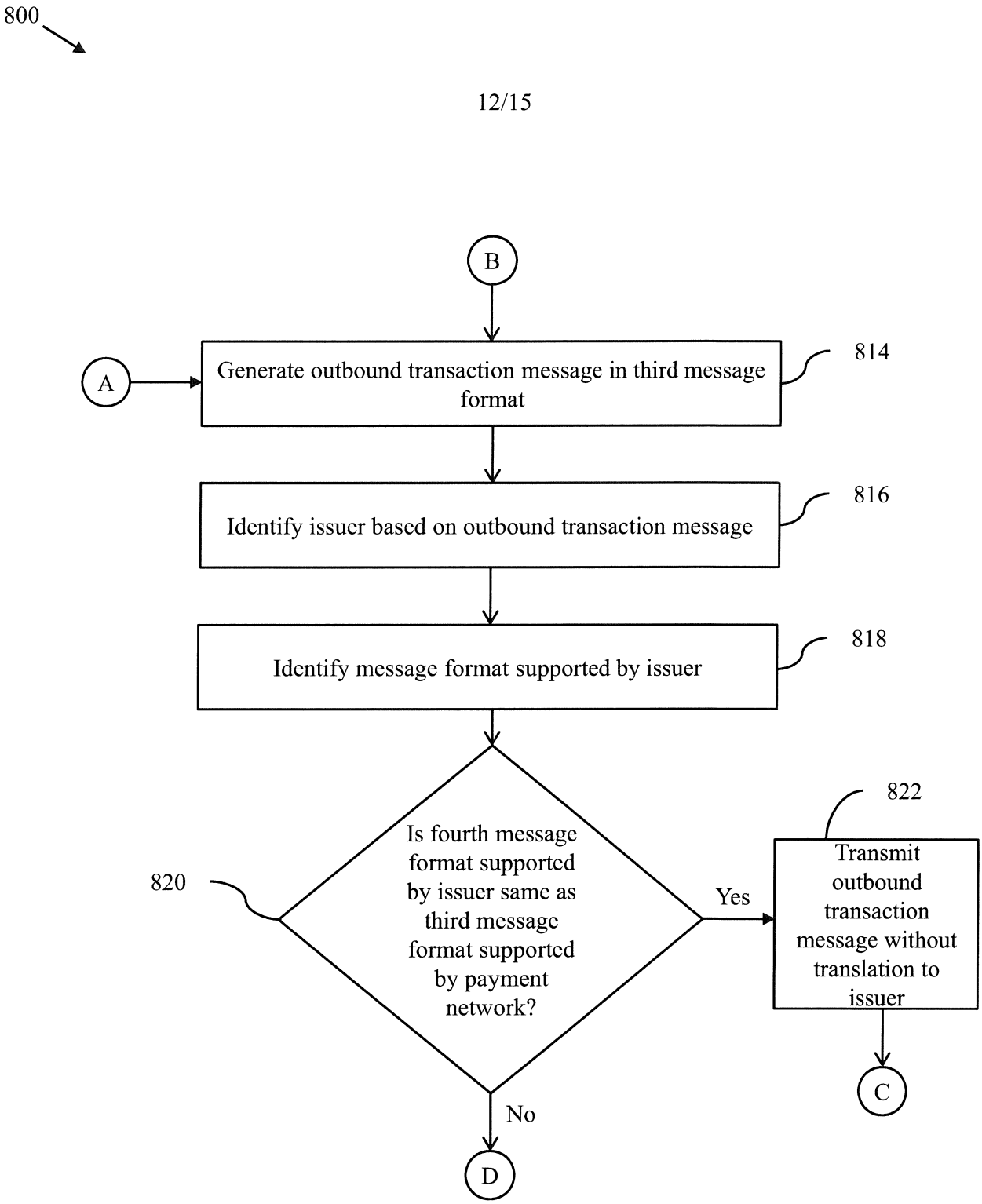

800
B
A
Generate outbound transaction message in third message format
814
Identify issuer based on outbound transaction message
816
Identify message format supported by issuer
818
820
Is fourth message format supported by issuer same as third message format supported by payment network?
Yes
822
Transmit outbound transaction message without translation to issuer
C
No
D

FIG. 8B

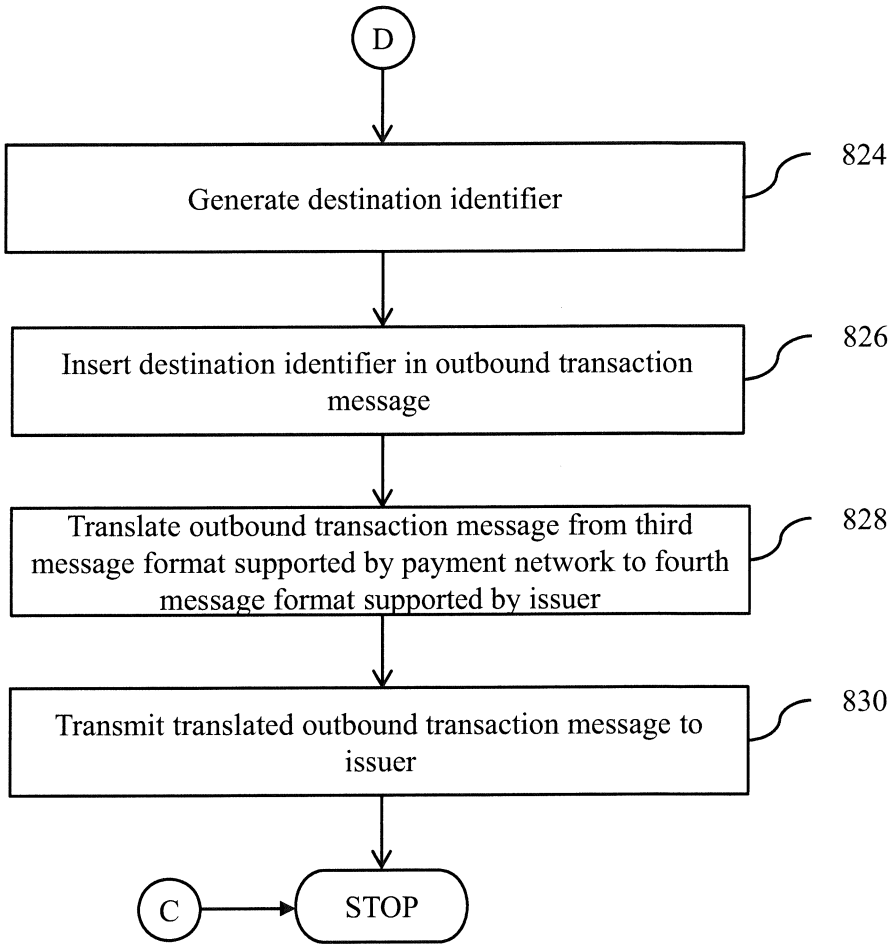

800
D
Generate destination identifier
824
Insert destination identifier in outbound transaction message
826
Translate outbound transaction message from third message format supported by payment network to fourth message format supported by issuer
828
Transmit translated outbound transaction message to issuer
830
C
STOP

FIG. 8C

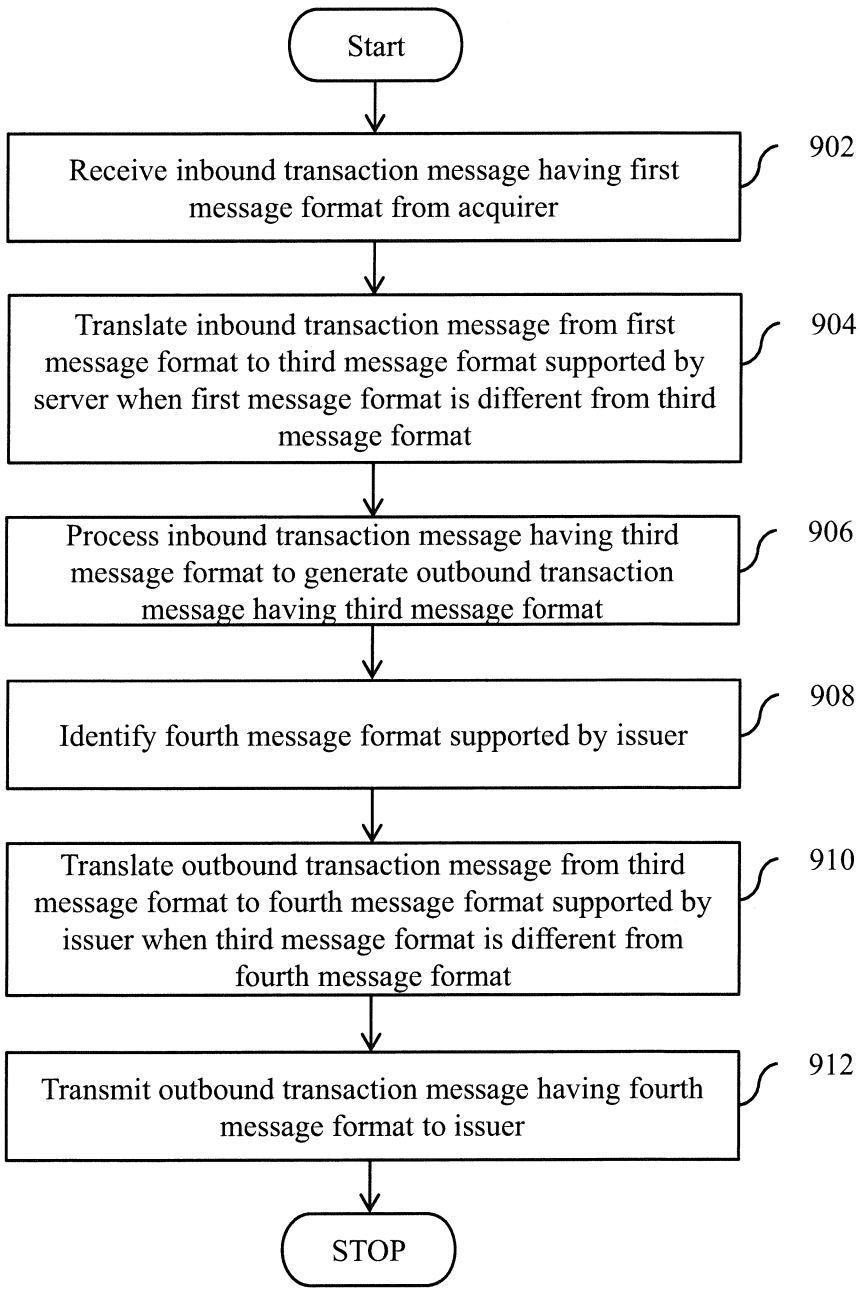

900
Start
Receive inbound transaction message having first message format from acquirer
902
Translate inbound transaction message from first message format to third message format supported by server when first message format is different from third message format
904
Process inbound transaction message having third message format to generate outbound transaction message having third message format
906
Identify fourth message format supported by issuer
908
Translate outbound transaction message from third message format to fourth message format supported by issuer when third message format is different from fourth message format
910
Transmit outbound transaction message having fourth message format to issuer
912
STOP

FIG. 9

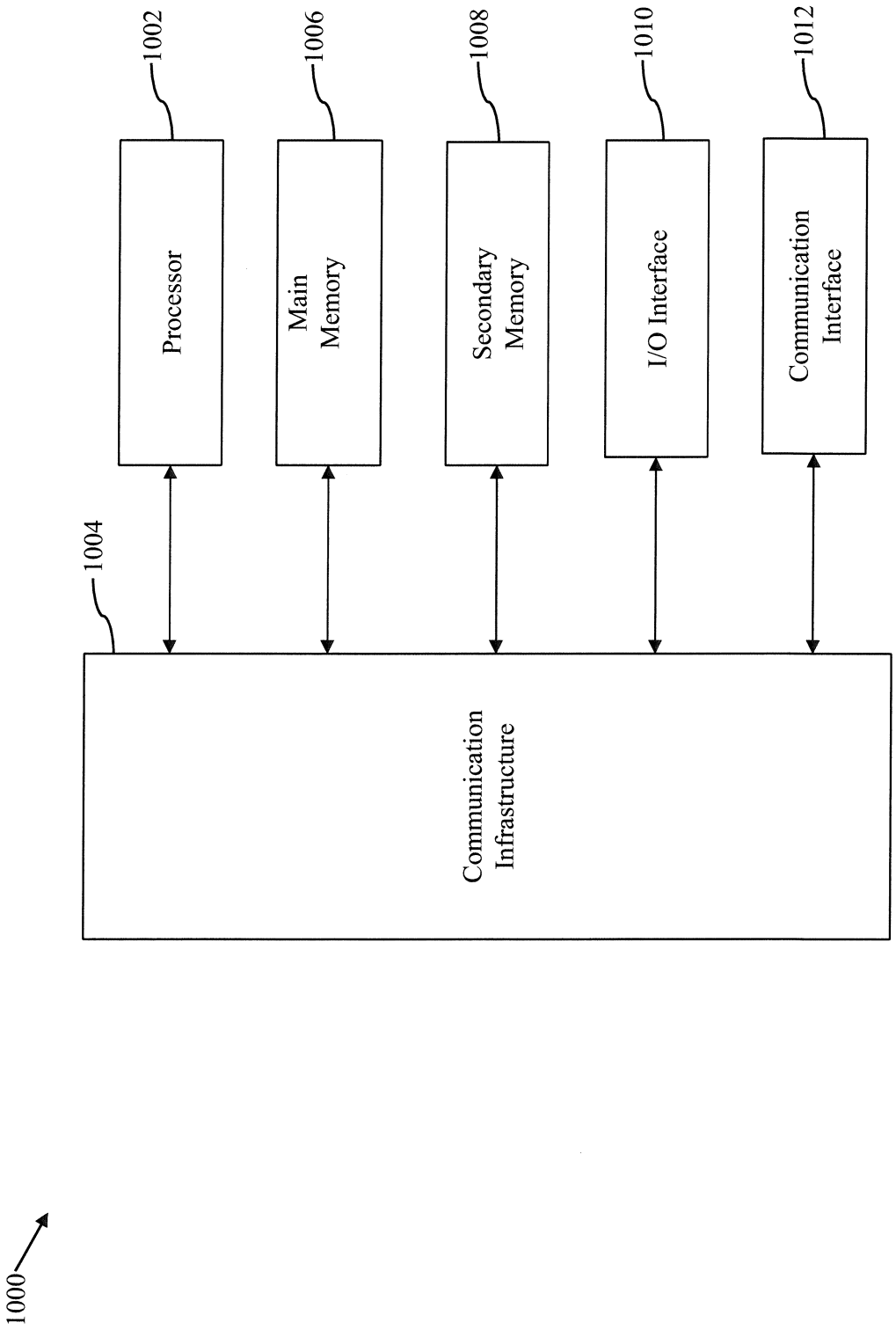

1000
1002
Processor
1004
Communication Infrastructure
1006
Main Memory
1008
Secondary Memory
1010
I/O Interface
1012
Communication Interface

FIG. 10