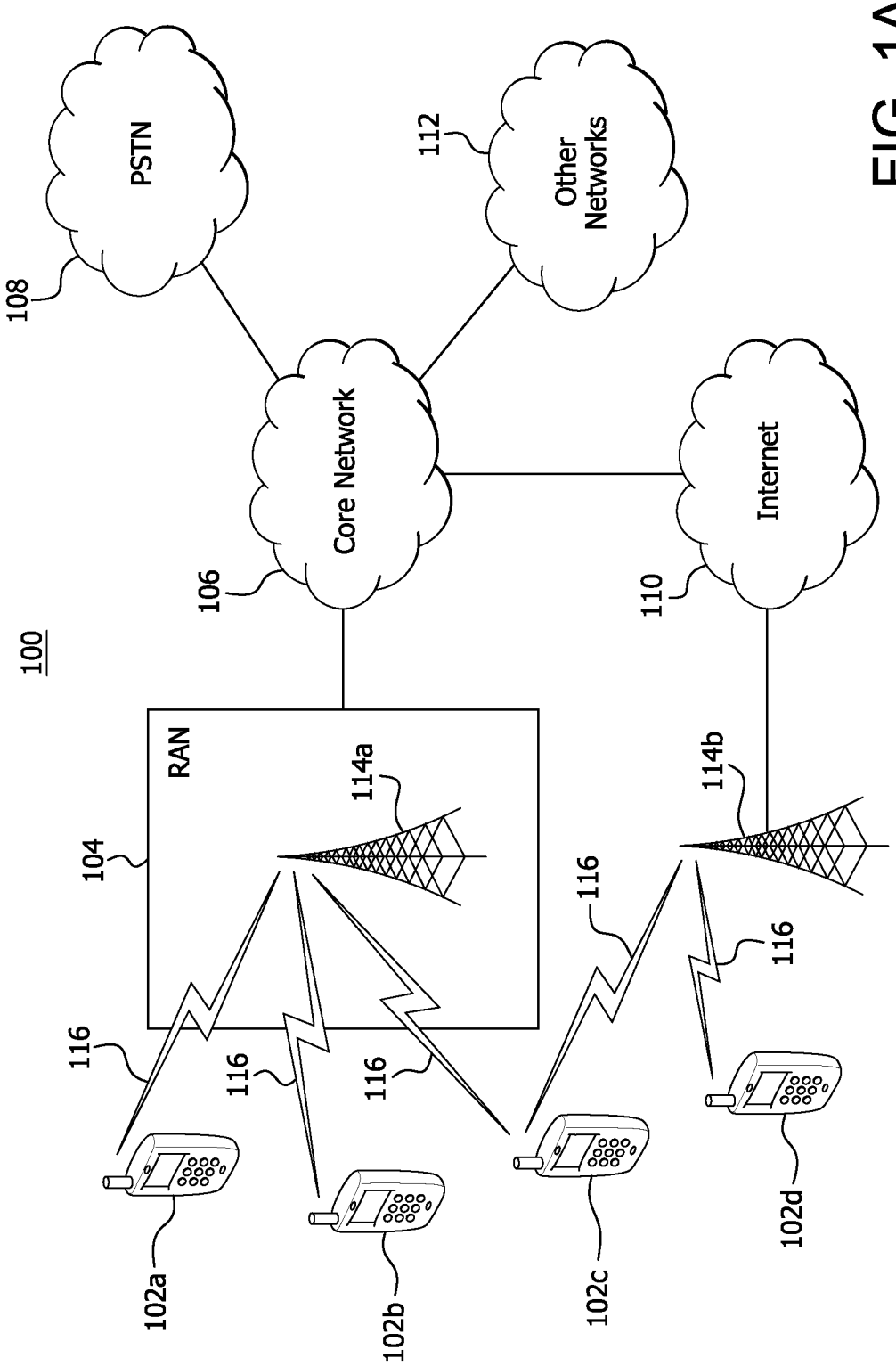

PSTN
108
Other Networks
112
Core Network
106
Internet
110
100
RAN
104
114a
114b
116
116
116
116
116
102a
102b
102c
102d

FIG. 1A

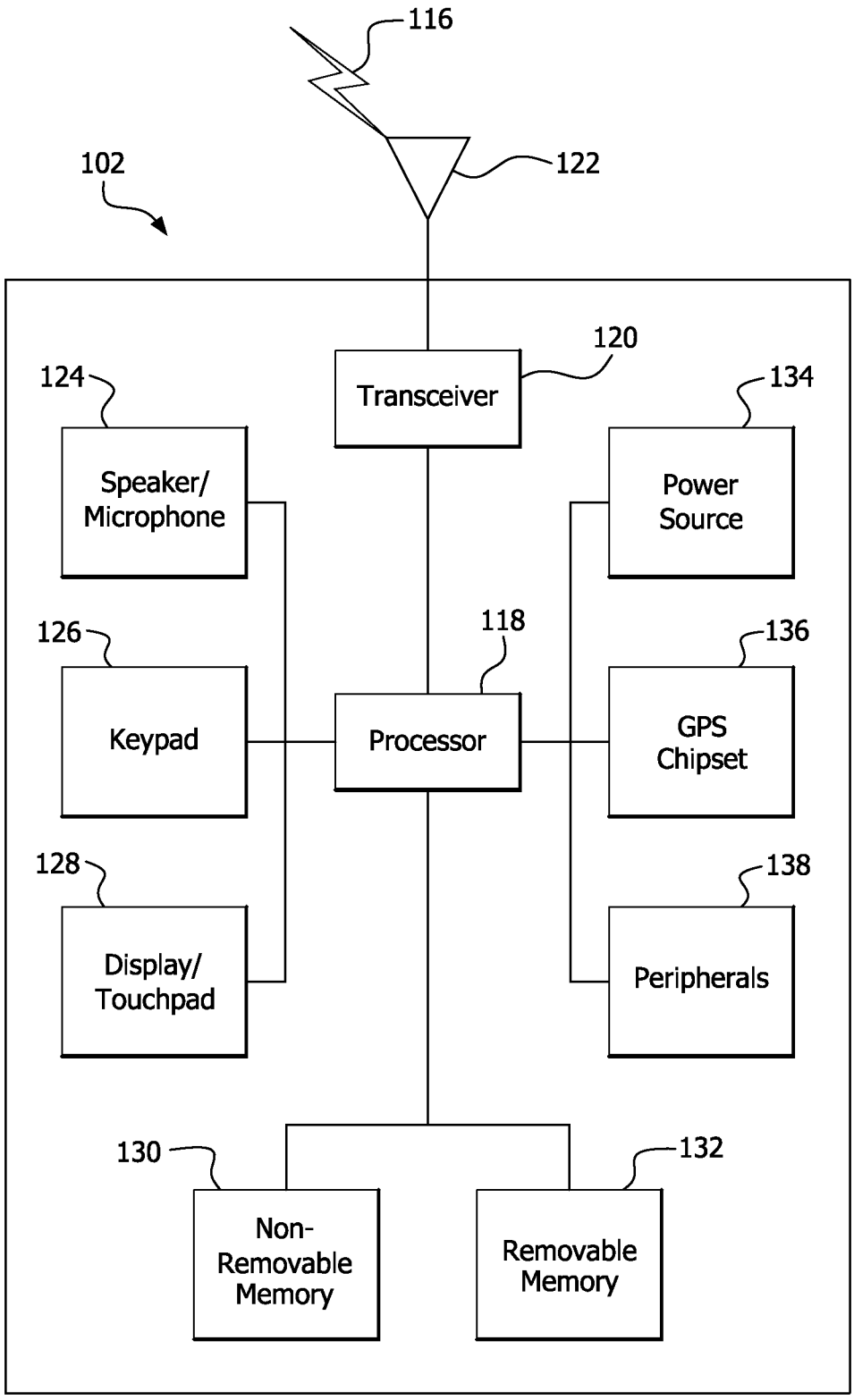

116
102
122
120
Transceiver
124
Speaker/
Microphone
134
Power
Source
126
Keypad
118
Processor
136
GPS
Chipset
128
Display/
Touchpad
138
Peripherals
130
Non-
Removable
Memory
132
Removable
Memory

FIG. 1B

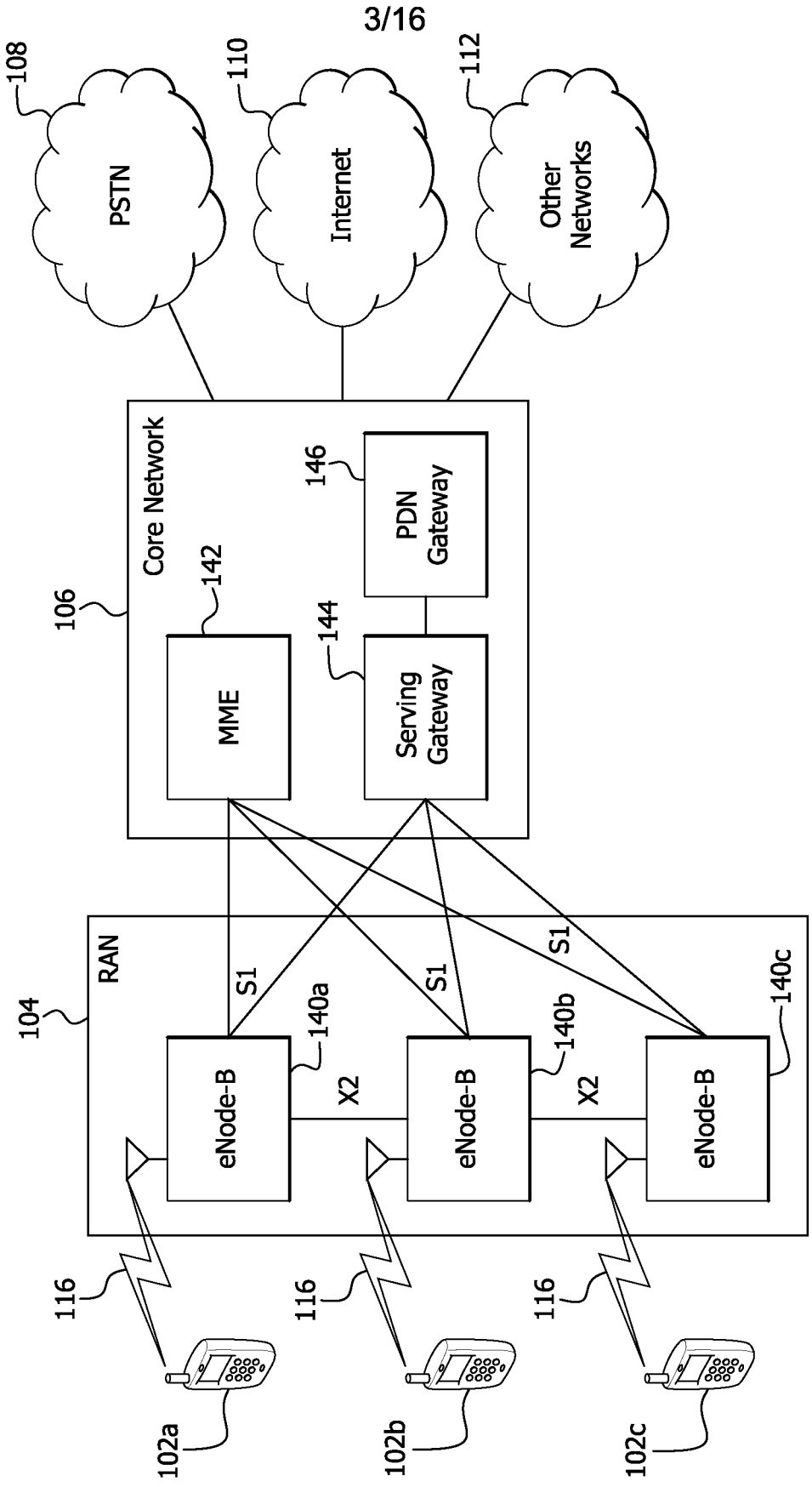

108
PSTN
110
Internet
112
Other Networks
106
Core Network
142
MME
144
Serving Gateway
146
PDN Gateway
104
RAN
S1
S1
S1
140a
140b
140c
eNode-B
eNode-B
eNode-B
X2
X2
116
116
116
102a
102b
102c

FIG. 1C

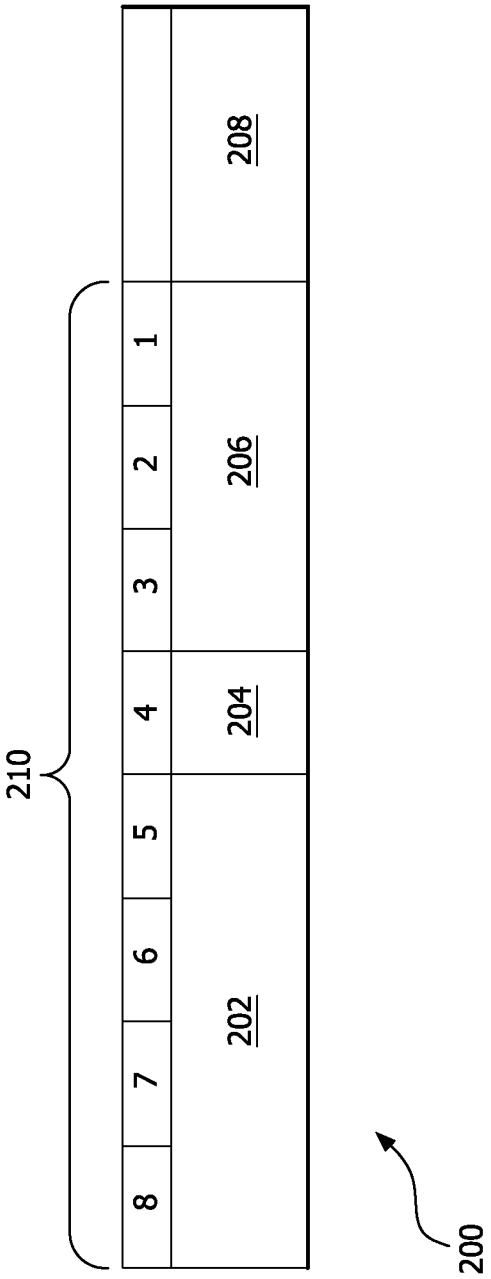


FIG. 2

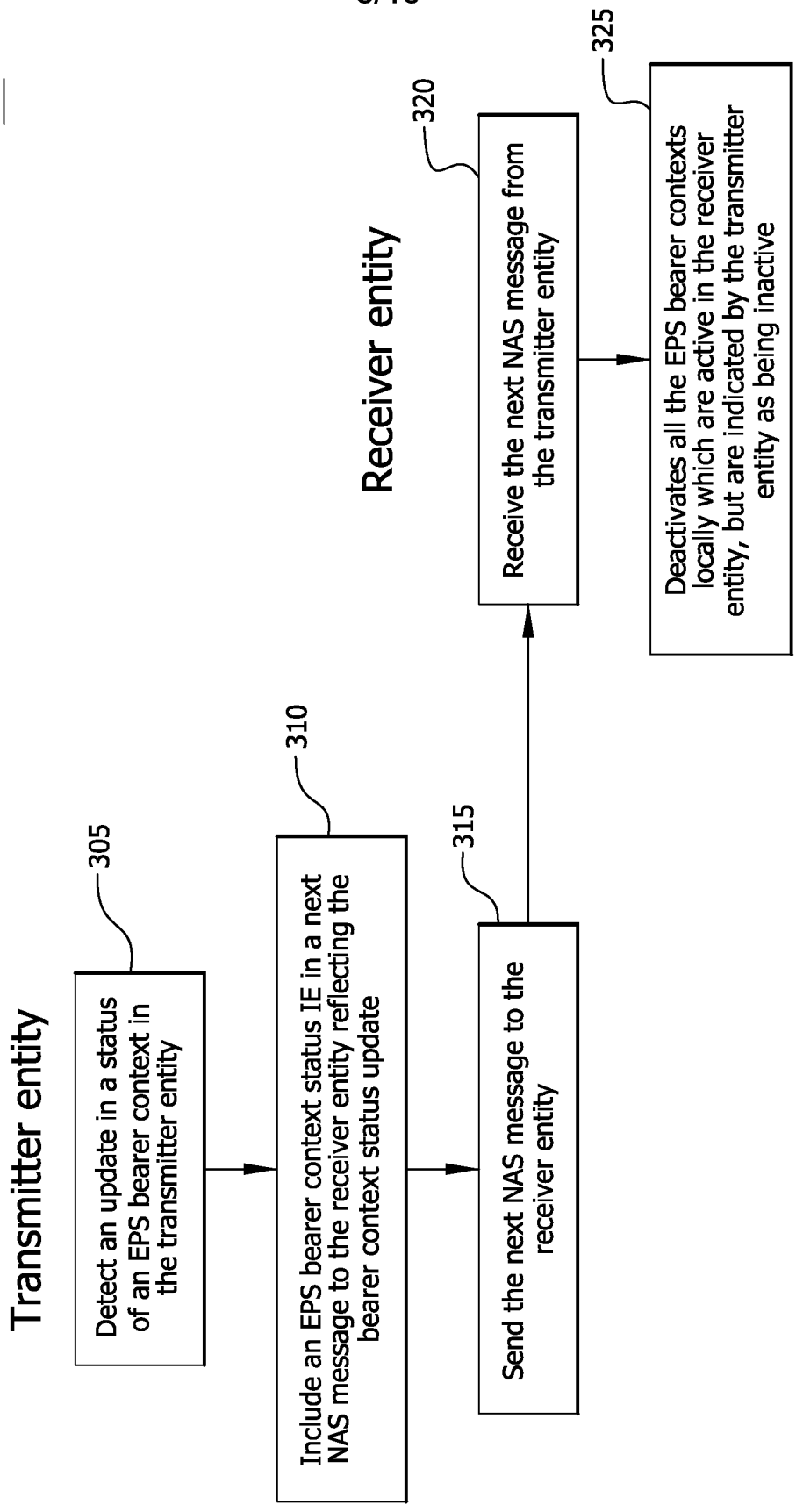

300
Transmitter entity
Receiver entity
305
Detect an update in a status of an EPS bearer context in the transmitter entity
310
Include an EPS bearer context status IE in a next NAS message to the receiver entity reflecting the bearer context status update
315
Send the next NAS message to the receiver entity
320
Receive the next NAS message from the transmitter entity
325
Deactivates all the EPS bearer contexts locally which are active in the receiver entity, but are indicated by the transmitter entity as being inactive

FIG. 3

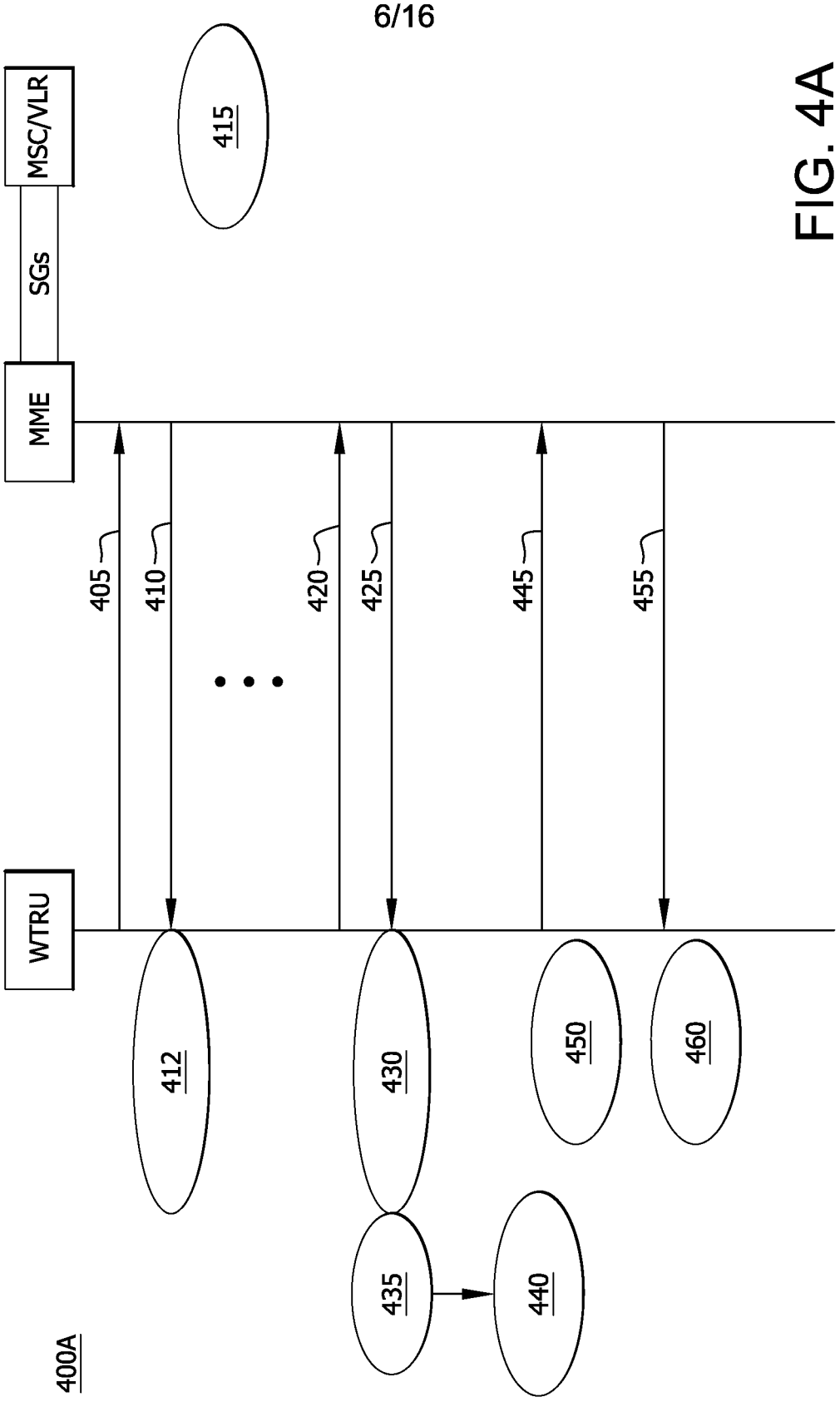


FIG. 4A
Prior Art

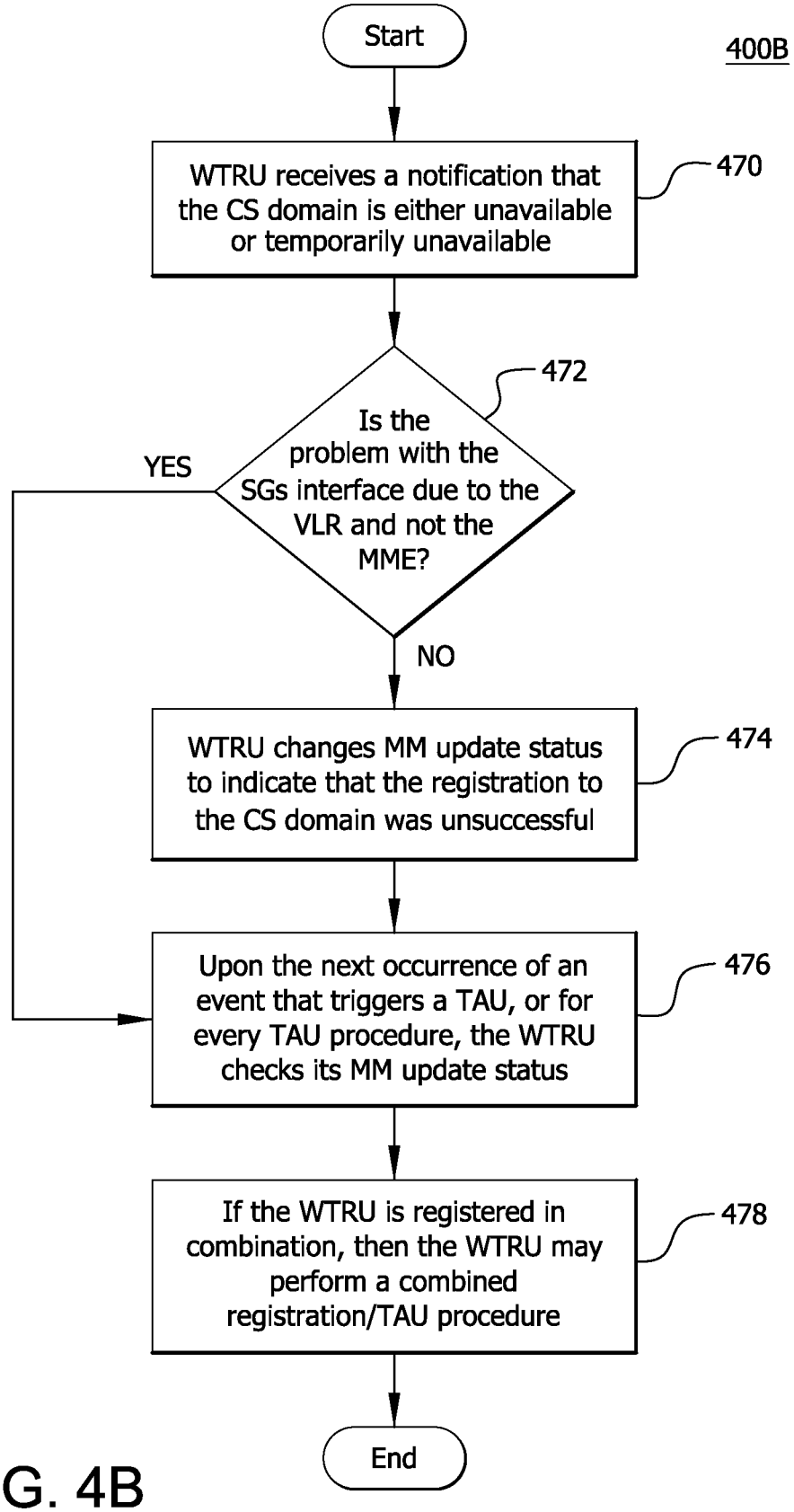

Start
400B
WTRU receives a notification that the CS domain is either unavailable or temporarily unavailable
470
Is the problem with the SGs interface due to the VLR and not the MME?
472
YES
NO
WTRU changes MM update status to indicate that the registration to the CS domain was unsuccessful
474
Upon the next occurrence of an event that triggers a TAU, or for every TAU procedure, the WTRU checks its MM update status
476
If the WTRU is registered in combination, then the WTRU may perform a combined registration/TAU procedure
478
End

FIG. 4B

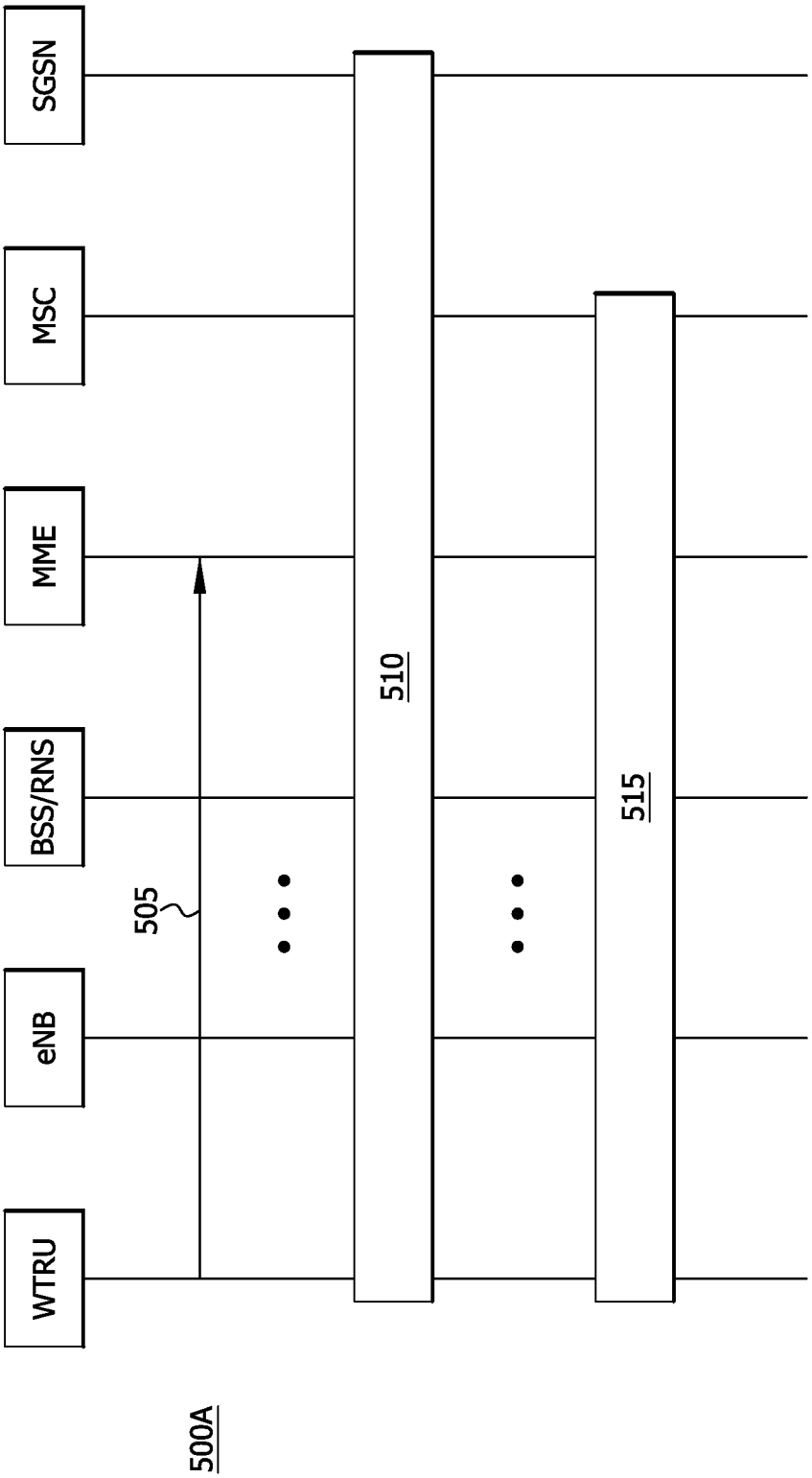


FIG. 5A
Prior Art

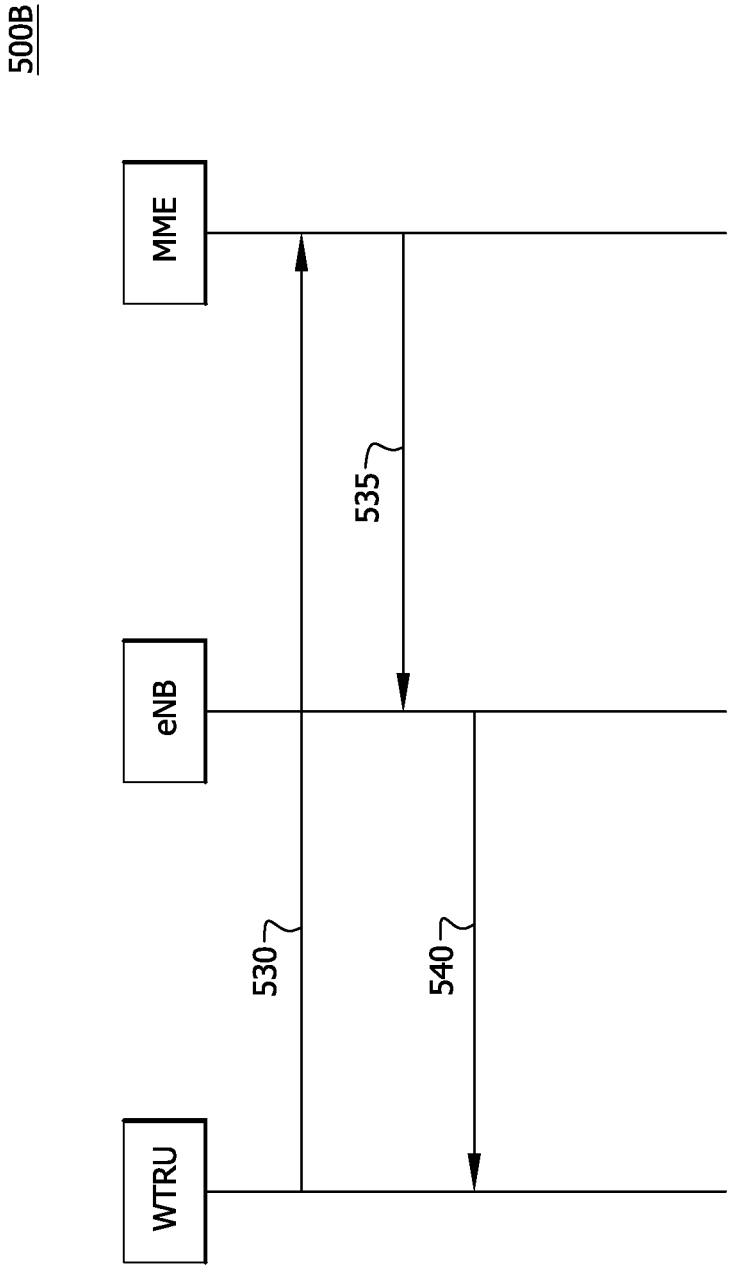


FIG. 5B

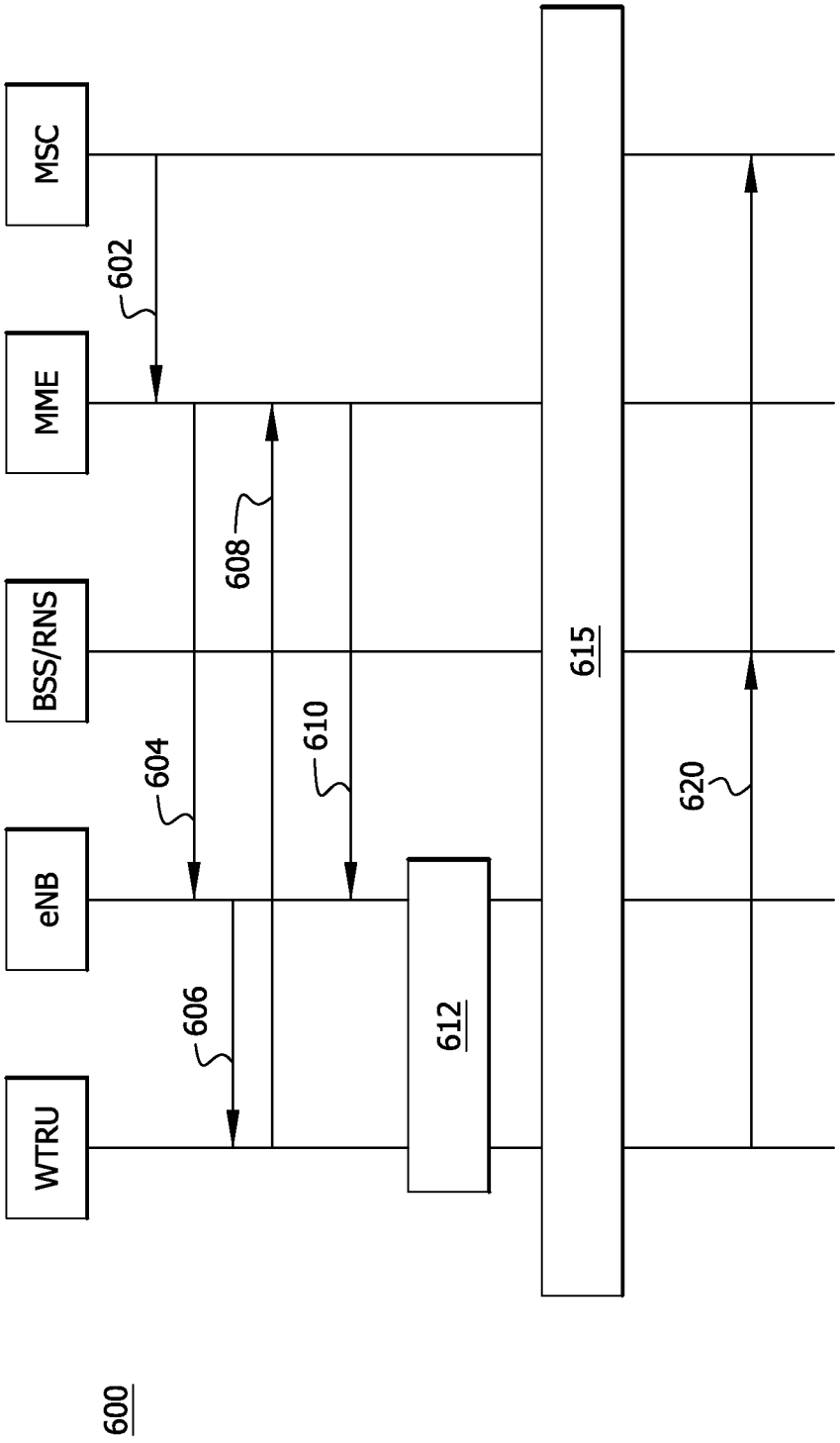


FIG. 6
Prior Art

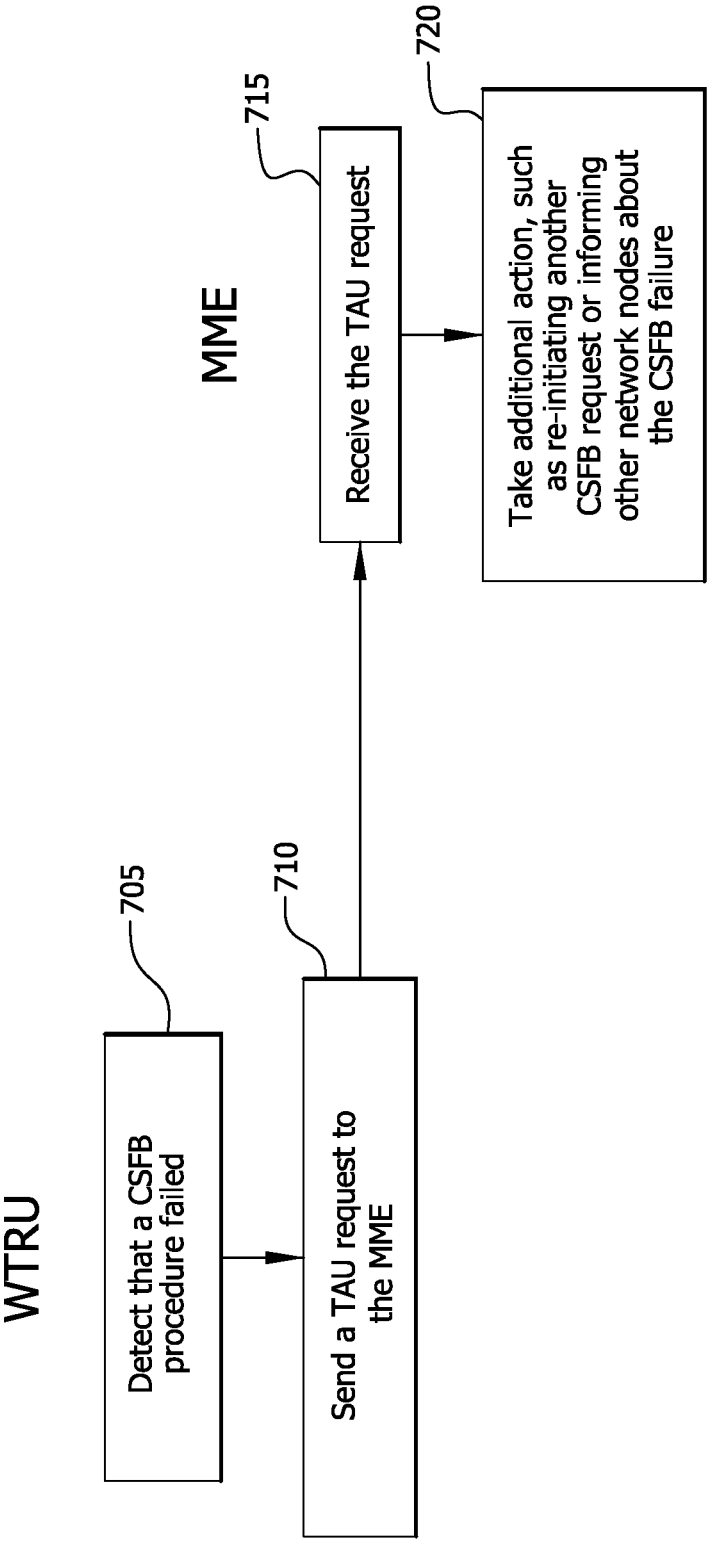

700
WTRU
MME
Detect that a CSFB procedure failed
705
Send a TAU request to the MME
710
Receive the TAU request
715
Take additional action, such as re-initiating another CSFB request or informing other network nodes about the CSFB failure
720

FIG. 7

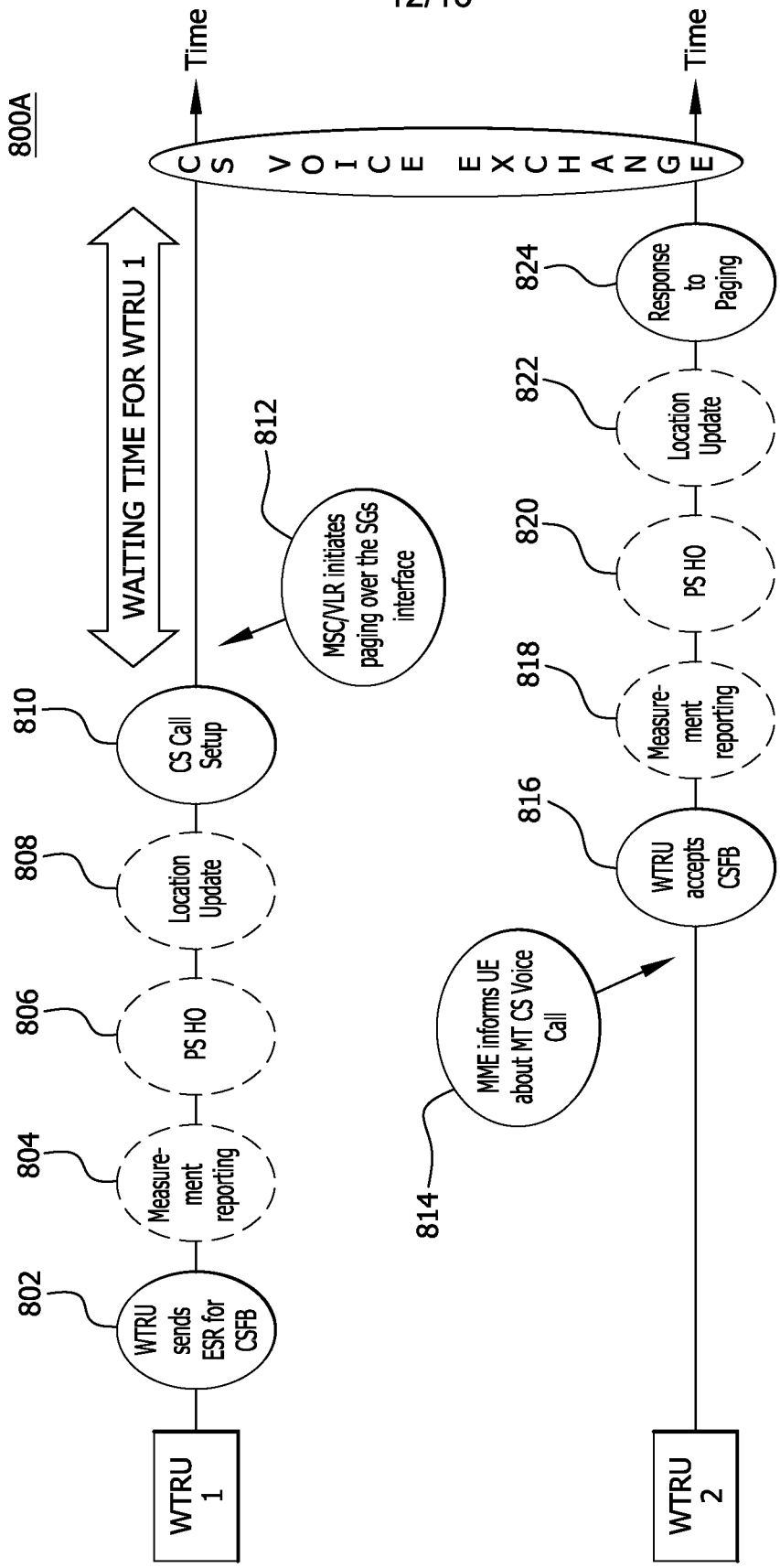


FIG. 8A
Prior Art

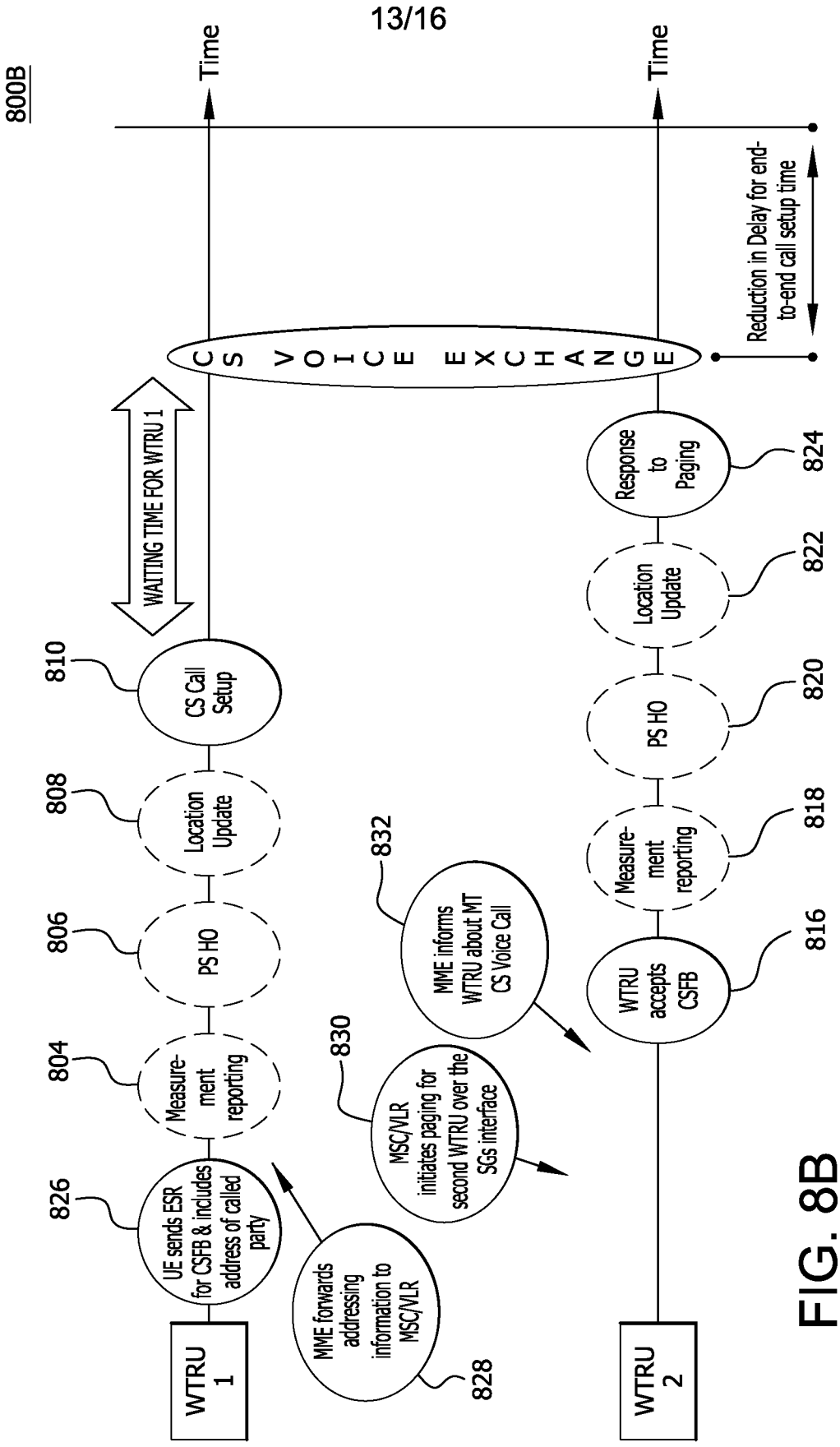
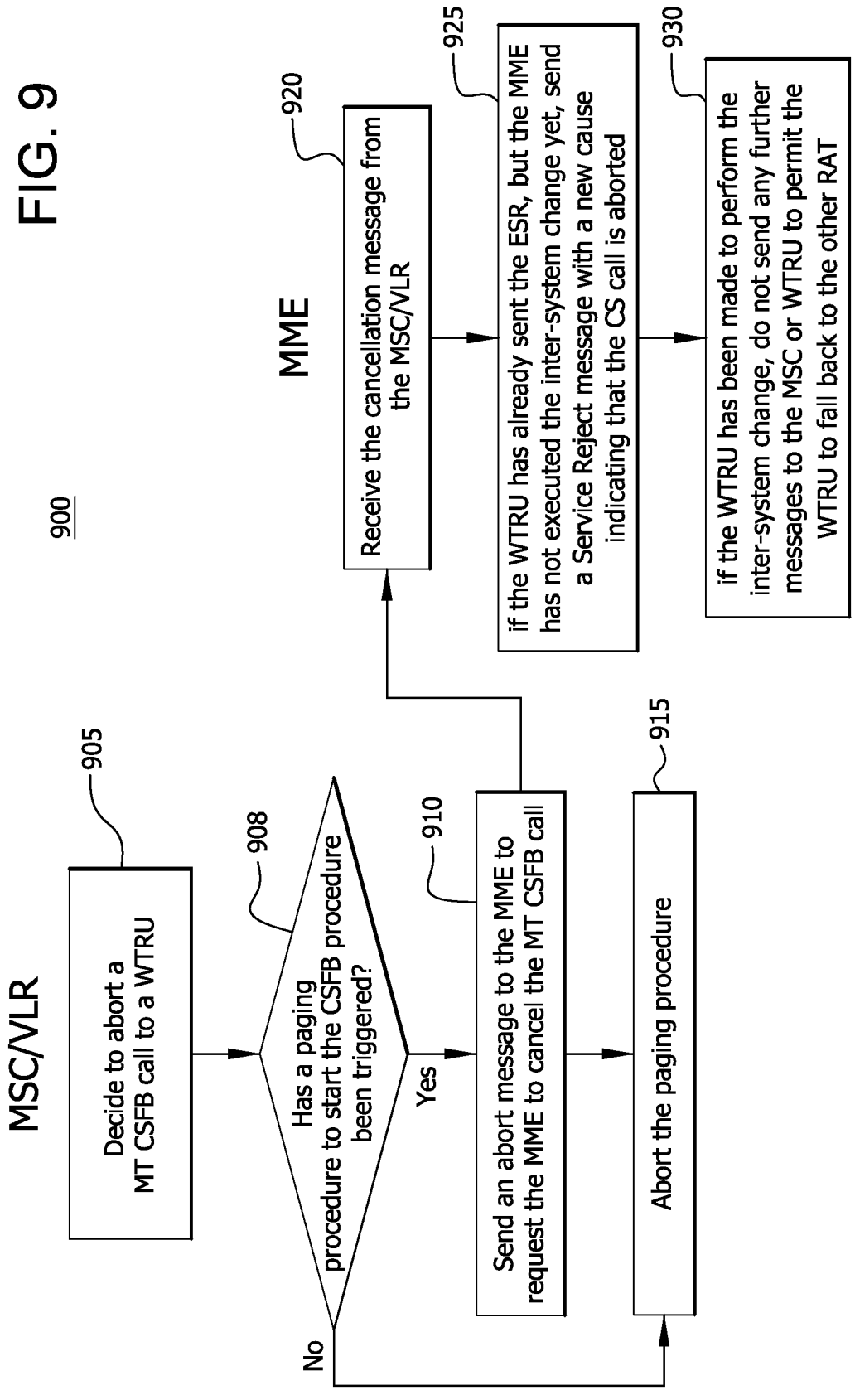

800B
Time
Time
CS VOICE EXCHANGE
Reduction in Delay for end-to-end call setup time
WAITING TIME FOR WTRU 1
WTRU 1
WTRU 2
UE sends ESR for CSFB & includes address of called party
826
Measure-ment reporting
804
PS HO
806
Location Update
808
CS Call Setup
810
MME forwards addressing information to MSC/VLR
828
MSC/VLR initiates paging for second WTRU over the SGs interface
830
MME informs WTRU about MT CS Voice Call
832
WTRU accepts CSFB
816
Measure-ment reporting
818
PS HO
820
Location Update
822
Response to Paging
824

FIG. 8B

FIG. 9


900
MSC/VLR
MME
905
Decide to abort a MT CSFB call to a WTRU
908
Has a paging procedure to start the CSFB procedure been triggered?
Yes
No
910
Send an abort message to the MME to request the MME to cancel the MT CSFB call
915
Abort the paging procedure
920
Receive the cancellation message from the MSC/VLR
925
if the WTRU has already sent the ESR, but the MME has not executed the inter-system change yet, send a Service Reject message with a new cause indicating that the CS call is aborted
930
if the WTRU has been made to perform the inter-system change, do not send any further messages to the MSC or WTRU to permit the WTRU to fall back to the other RAT

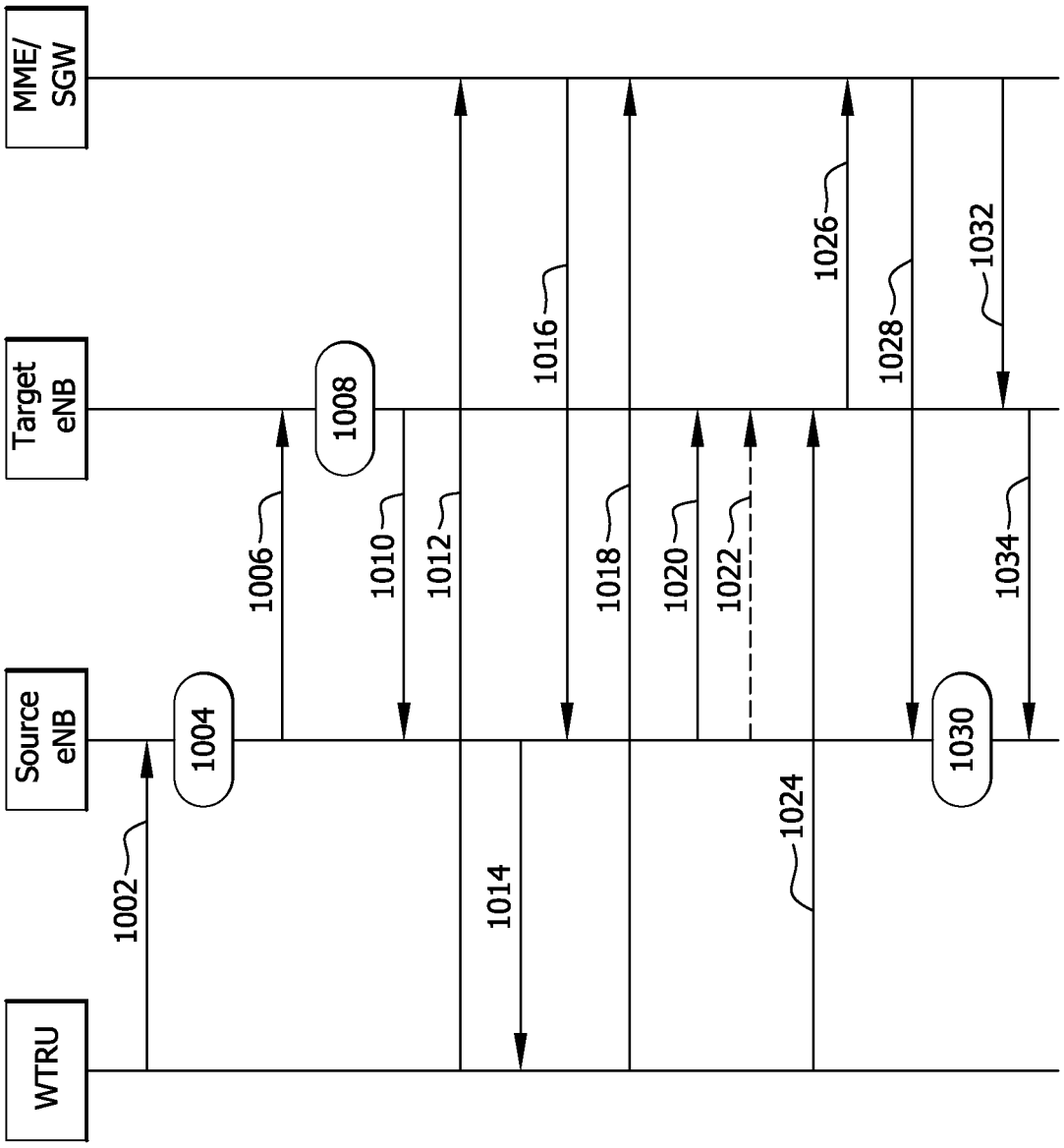

1000A
WTRU
Source eNB
Target eNB
MME/ SGW
1002
1004
1006
1008
1010
1012
1014
1016
1018
1020
1022
1024
1026
1028
1030
1032
1034

FIG. 10A

1000B

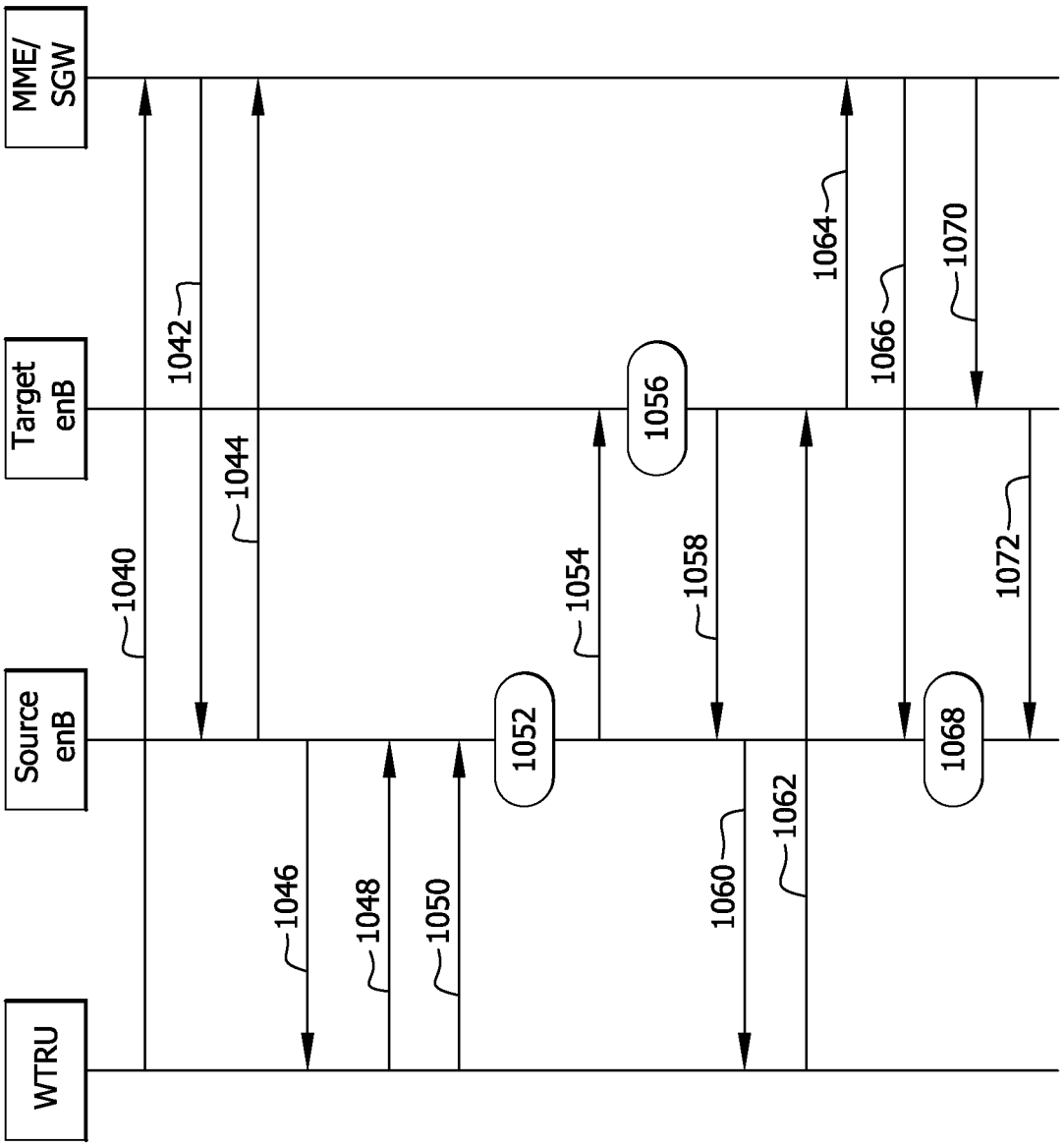


FIG. 10B