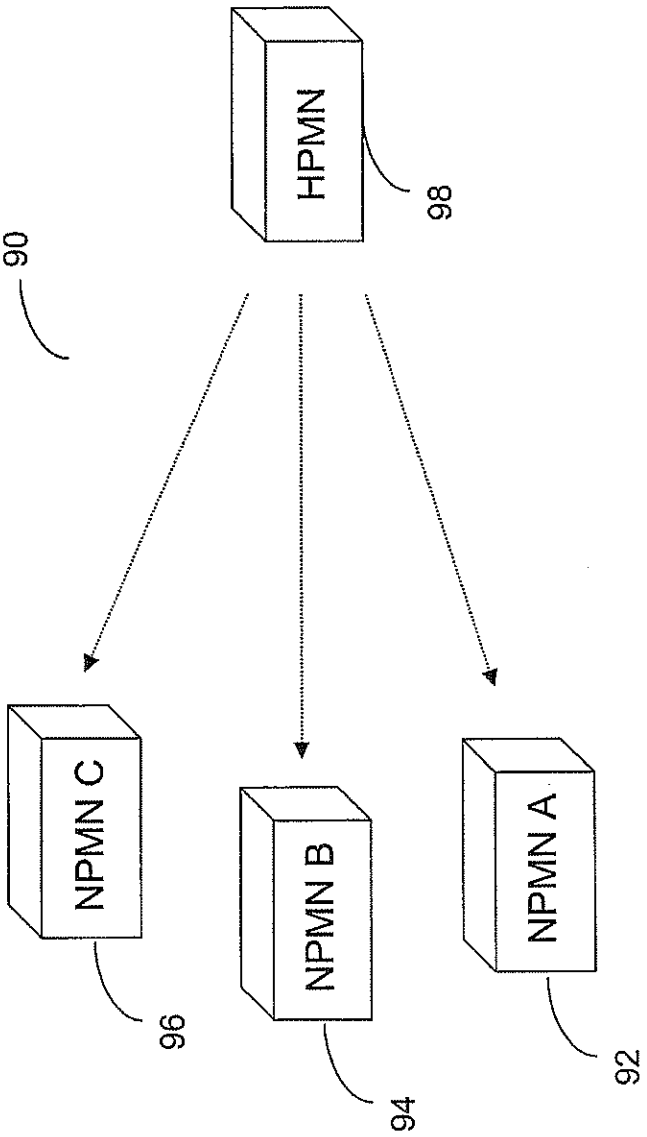


FIG. 1

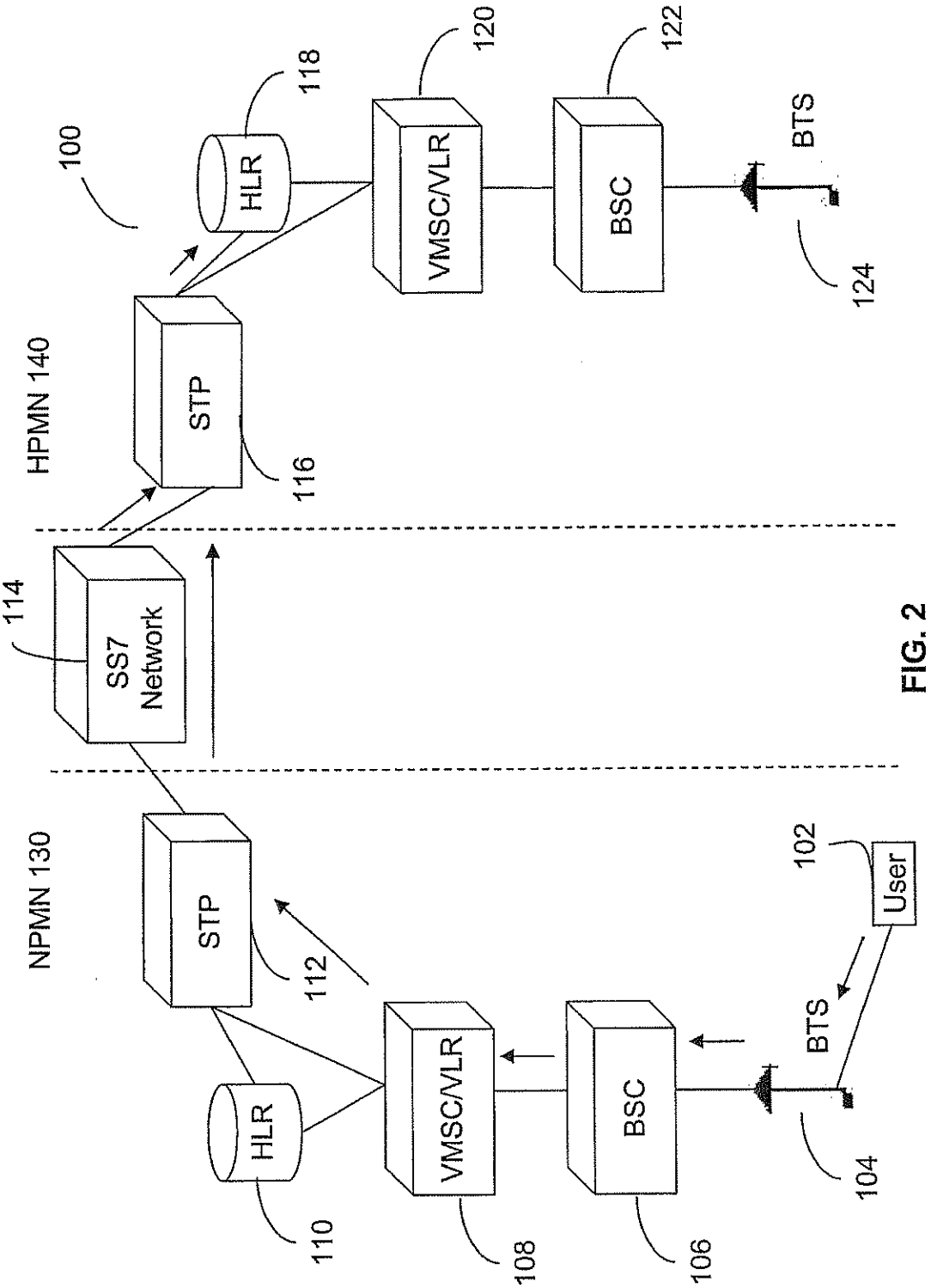

100
HLR
118
VMSC/VLR
120
BSC
122
BTS
124
HPMN 140
STP
116
114
SS7 Network
NPMN 130
STP
112
102
User
HLR
110
VMSC/VLR
108
BSC
106
BTS
104

FIG. 2

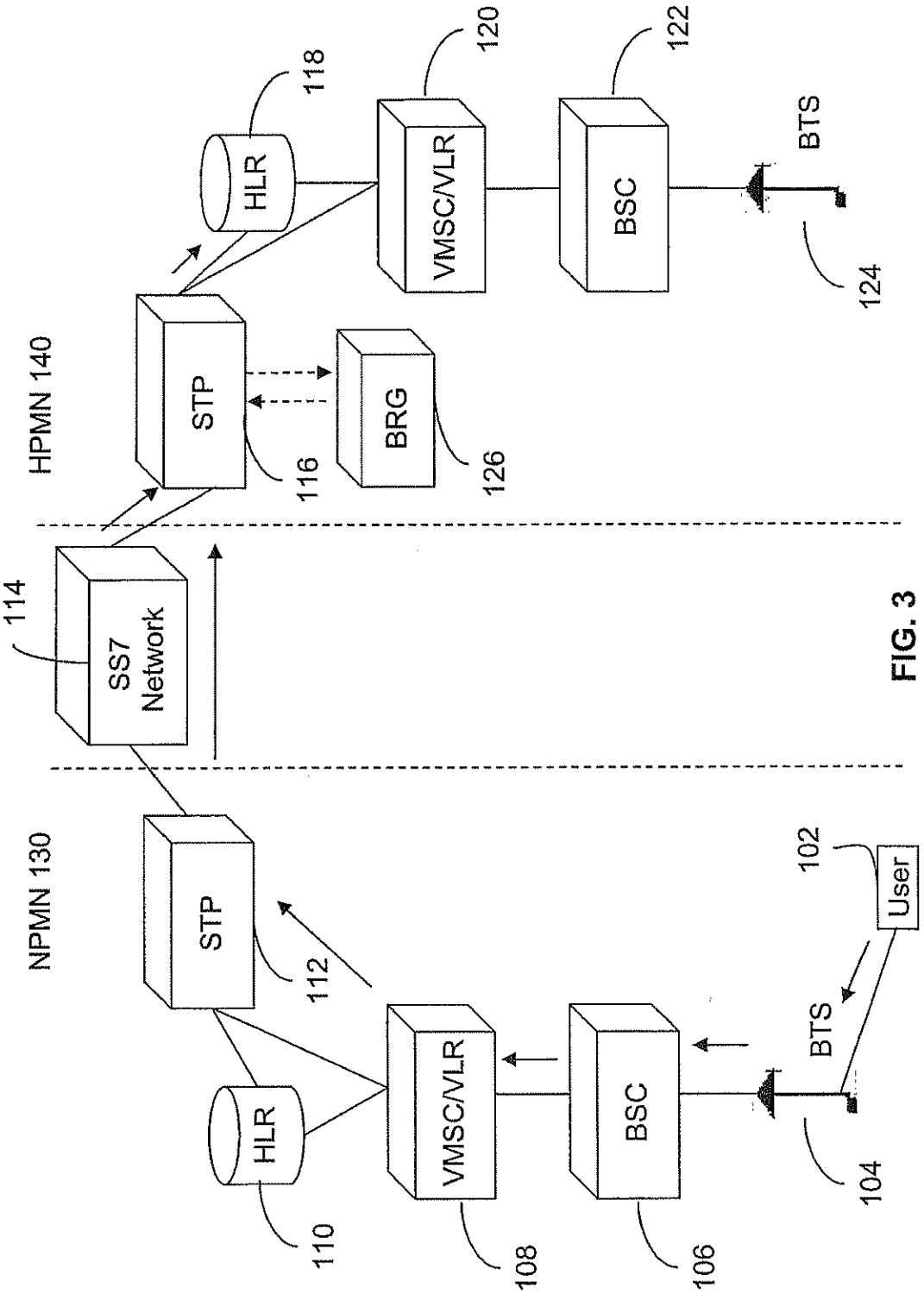

HPMN 140
NPMN 130
SS7 Network
114
STP
116
BRG
126
HLR
118
VMSC/VLR
120
BSC
122
BTS
124
STP
112
HLR
110
VMSC/VLR
108
BSC
106
BTS
104
User
102

FIG. 3

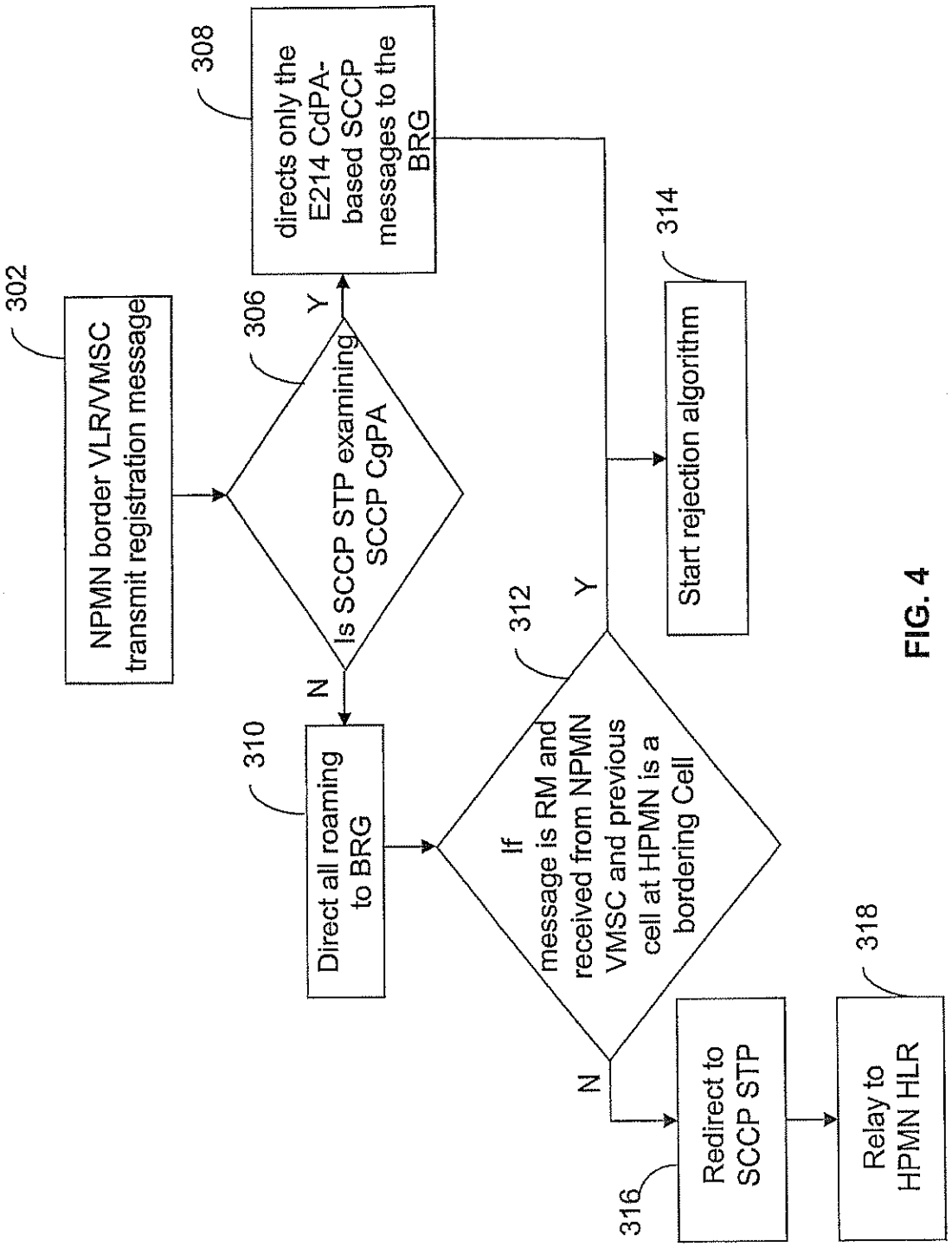

302
NPMN border VLR/VMSC transmit registration message
306
Is SCCP STP examining SCCP CgPA
Y
308
directs only the E214 CdPA-based SCCP messages to the BRG
N
310
Direct all roaming to BRG
312
If message is RM and received from NPMN VMSC and previous cell at HPMN is a bordering Cell
Y
314
Start rejection algorithm
N
316
Redirect to SCCP STP
318
Relay to HPMN HLR

FIG. 4

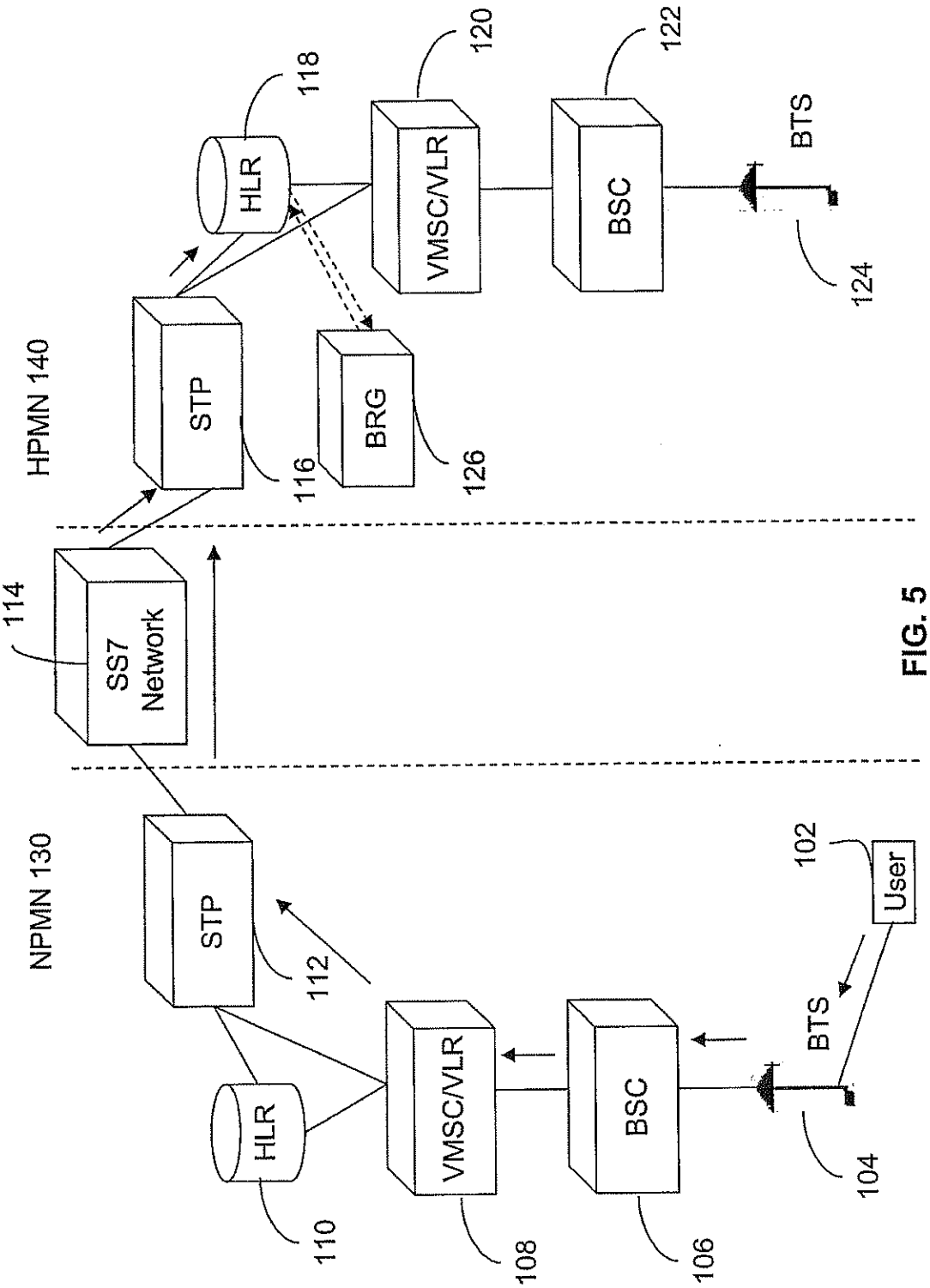

NPMN 130
HPMN 140
SS7 Network
114
STP
112
HLR
110
VMSC/VLR
108
BSC
106
BTS
104
User
102
STP
116
BRG
126
HLR
118
VMSC/VLR
120
BSC
122
BTS
124

FIG. 5

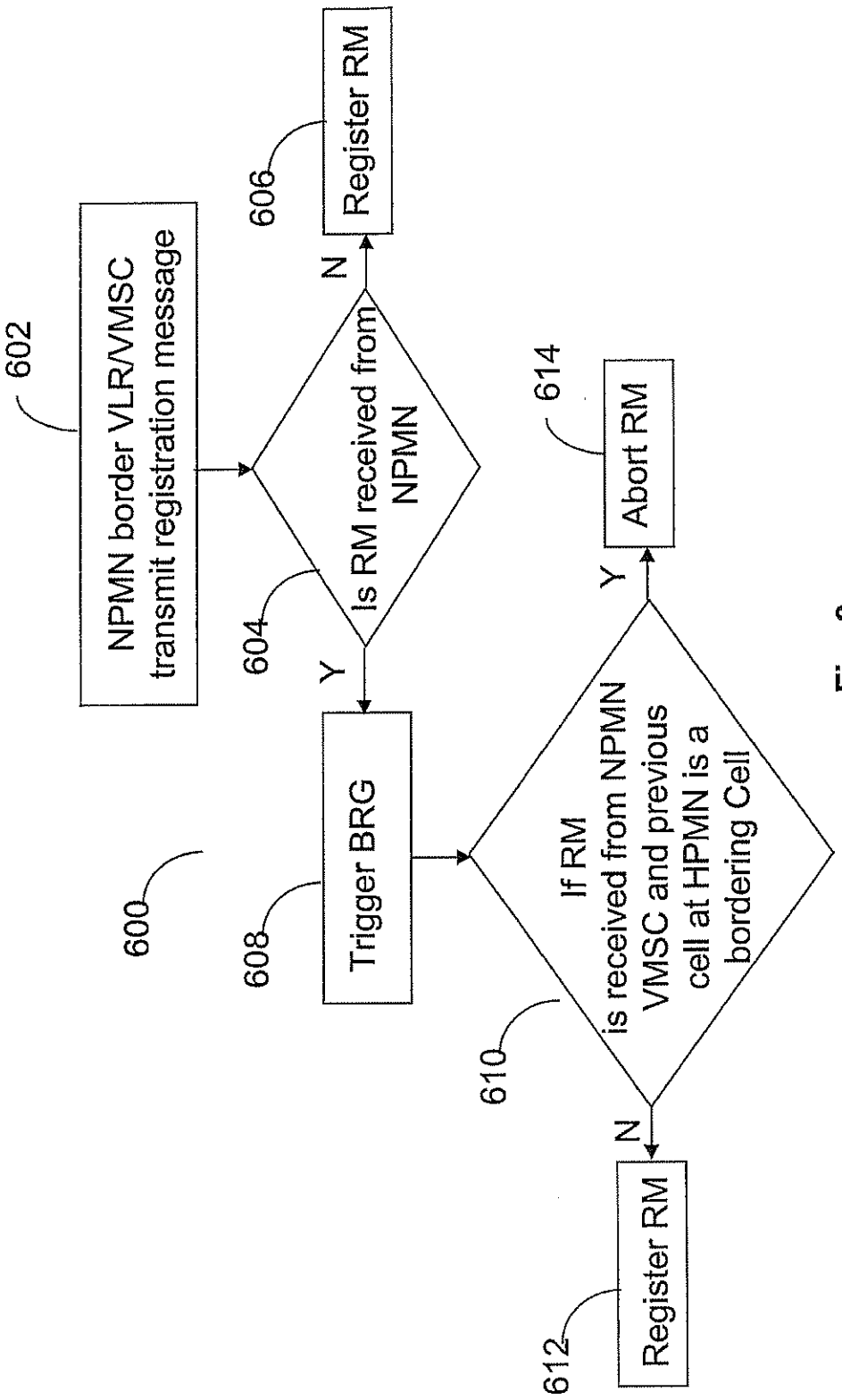

600
602
NPMN border VLR/VMSC transmit registration message
604
Is RM received from NPMN
N
606
Register RM
Y
608
Trigger BRG
610
If RM is received from NPMN VMSC and previous cell at HPMN is a bordering Cell
Y
614
Abort RM
N
612
Register RM

Fig. 6

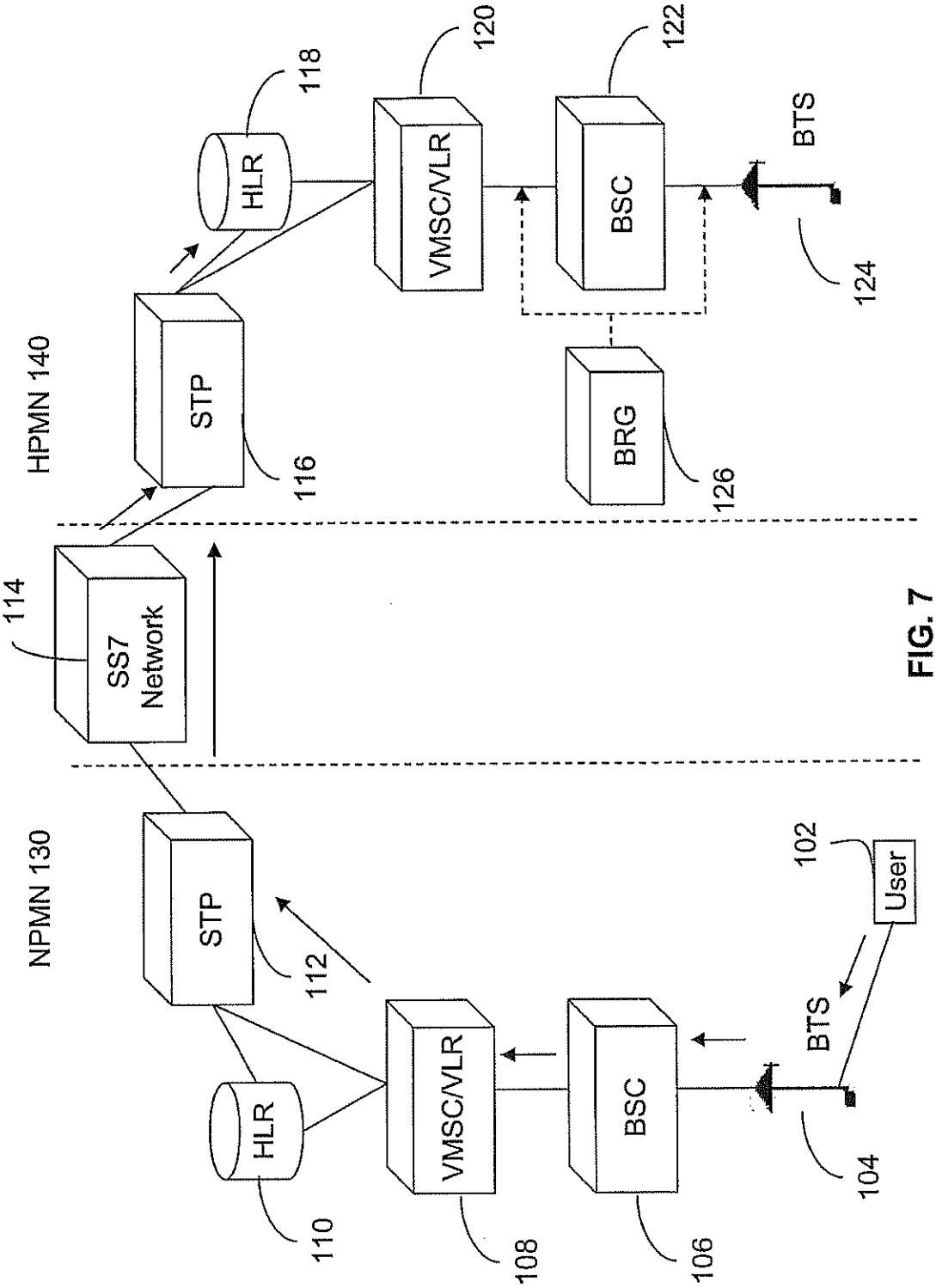

NPMN 130
HPMN 140
SS7 Network
114
STP
116
STP
112
HLR
118
HLR
110
VMSC/VLR
120
VMSC/VLR
108
BSC
122
BSC
106
BRG
126
BTS
124
BTS
104
User
102

FIG. 7

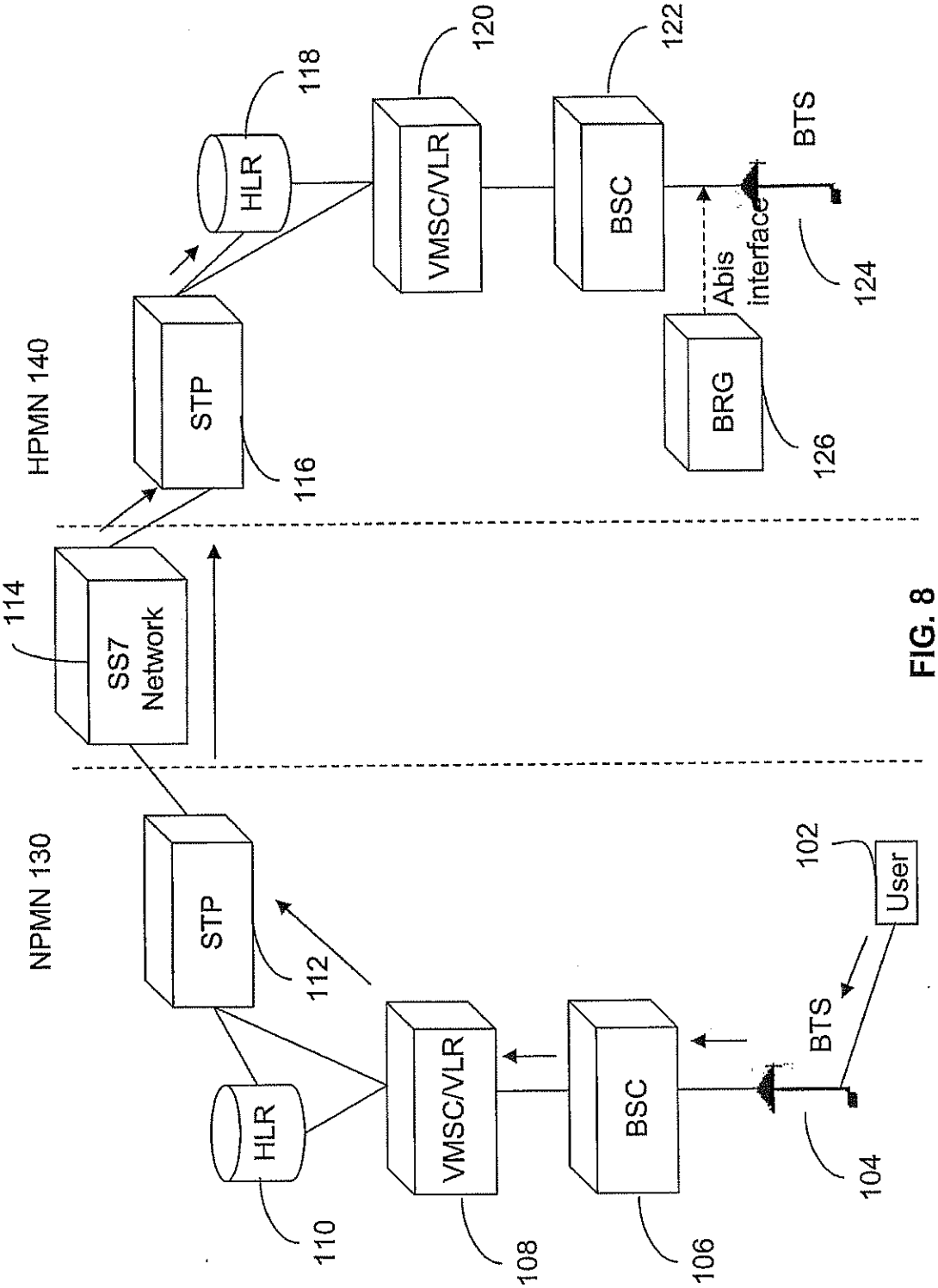

HPMN 140
NPMN 130
SS7 Network
114
STP
116
HLR
118
VMSC/VLR
120
BSC
122
BTS
Abis interface
124
BRG
126
STP
112
HLR
110
VMSC/VLR
108
BSC
106
BTS
104
User
102

FIG. 8

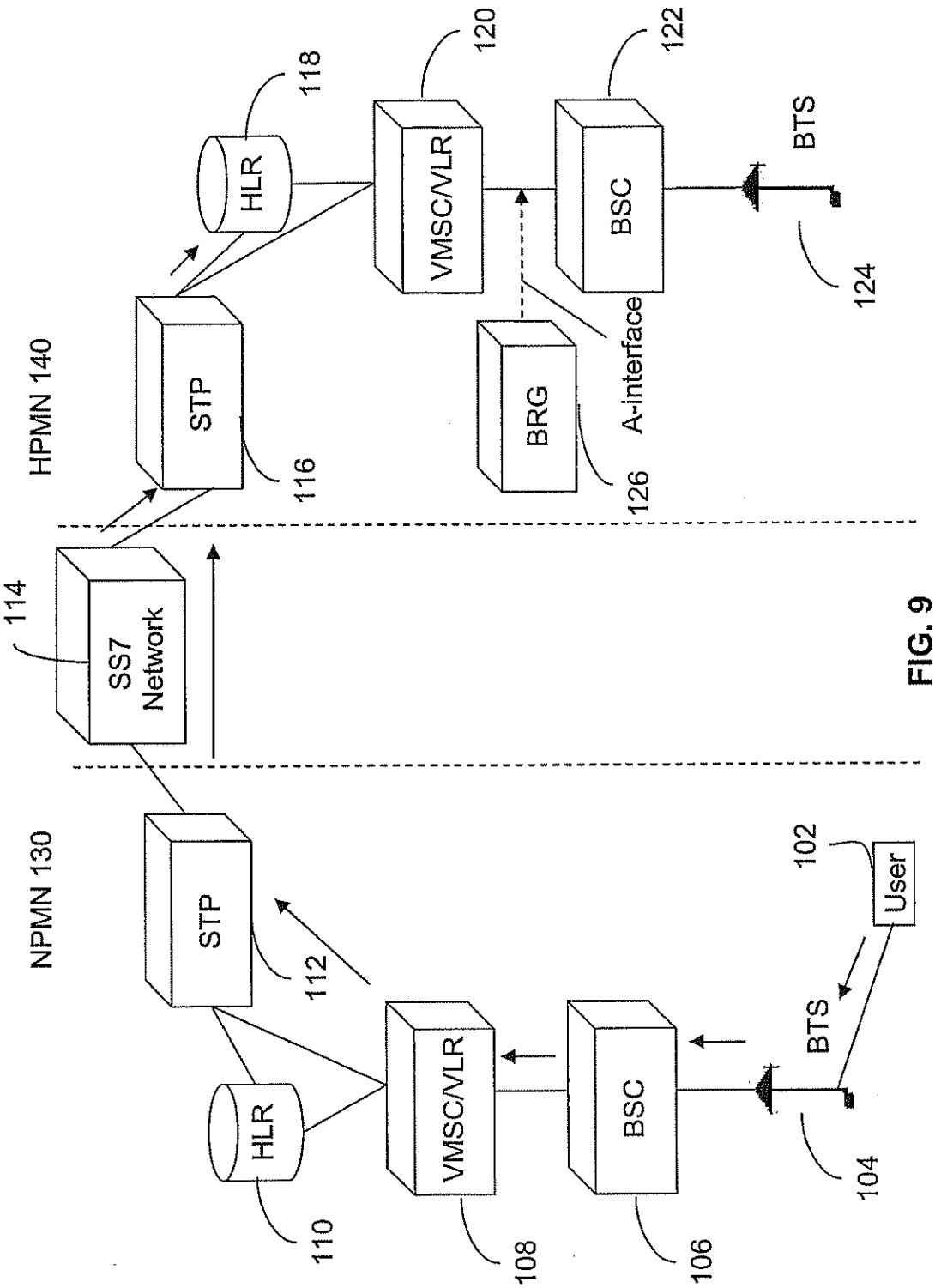

NPMN 130
HPMN 140
114
SS7 Network
STP
112
HLR
110
VMSC/VLR
108
BSC
106
BTS
104
User
102
STP
116
HLR
118
VMSC/VLR
120
BSC
122
BTS
124
BRG
126
A-interface

FIG. 9

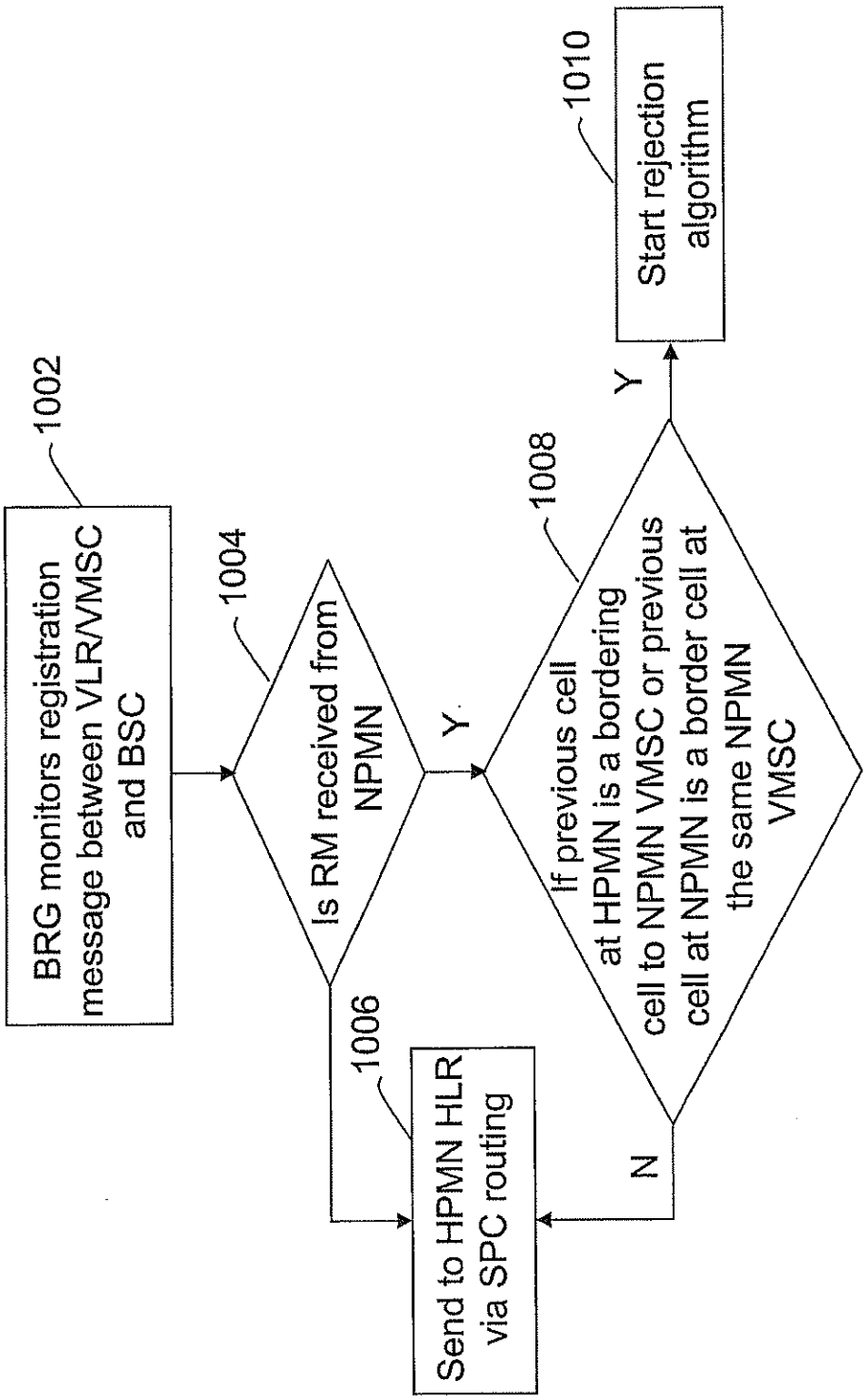

1002
BRG monitors registration message between VLR/VMSC and BSC
1004
Is RM received from NPMN
Y
1008
If previous cell at HPMN is a bordering cell to NPMN VMSC or previous cell at NPMN is a border cell at the same NPMN VMSC
Y
1010
Start rejection algorithm
N
1006
Send to HPMN HLR via SPC routing

FIG. 10

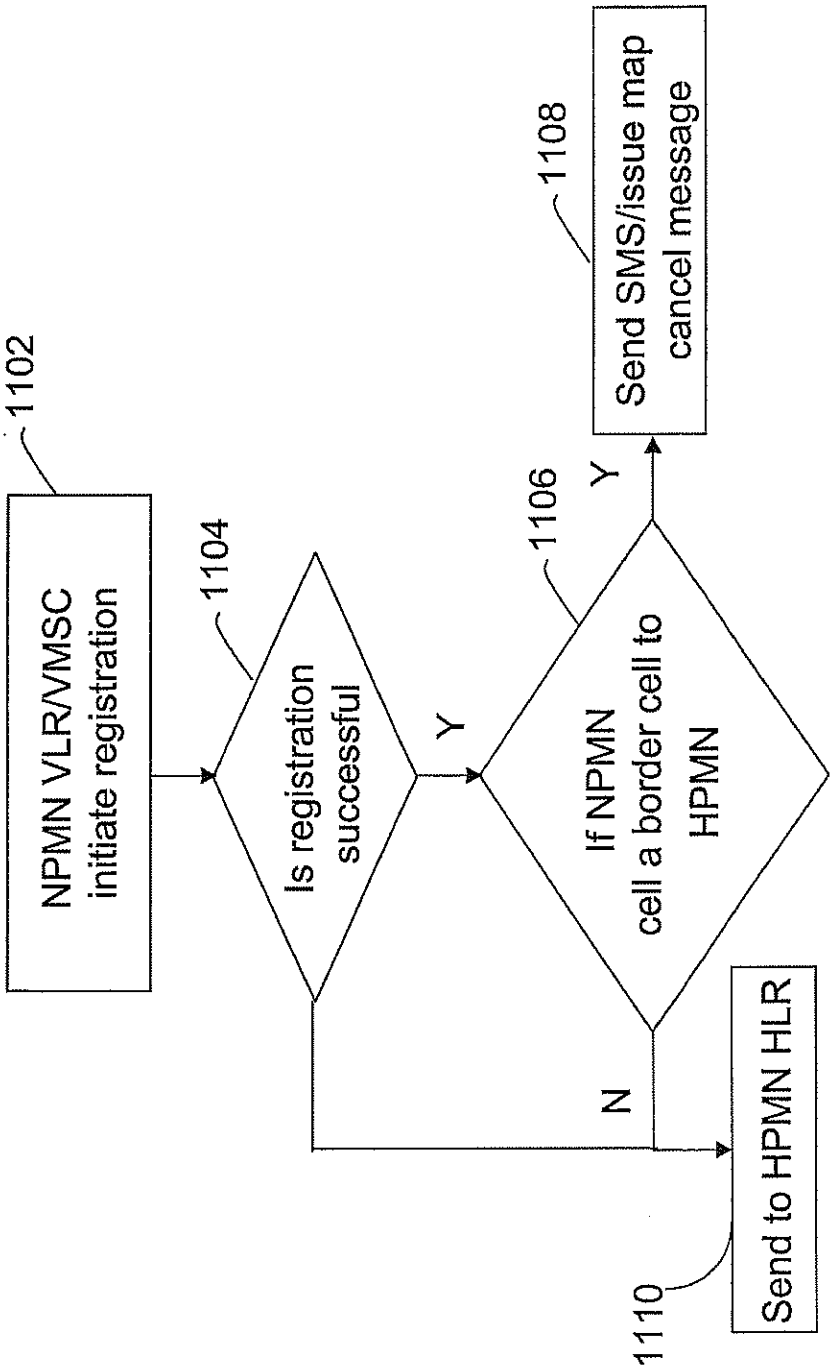

1102
NPMN VLR/VMSC initiate registration
1104
Is registration successful
Y
1106
If NPMN cell a border cell to HPMN
Y
1108
Send SMS/issue map cancel message
N
1110
Send to HPMN HLR

FIG. 11