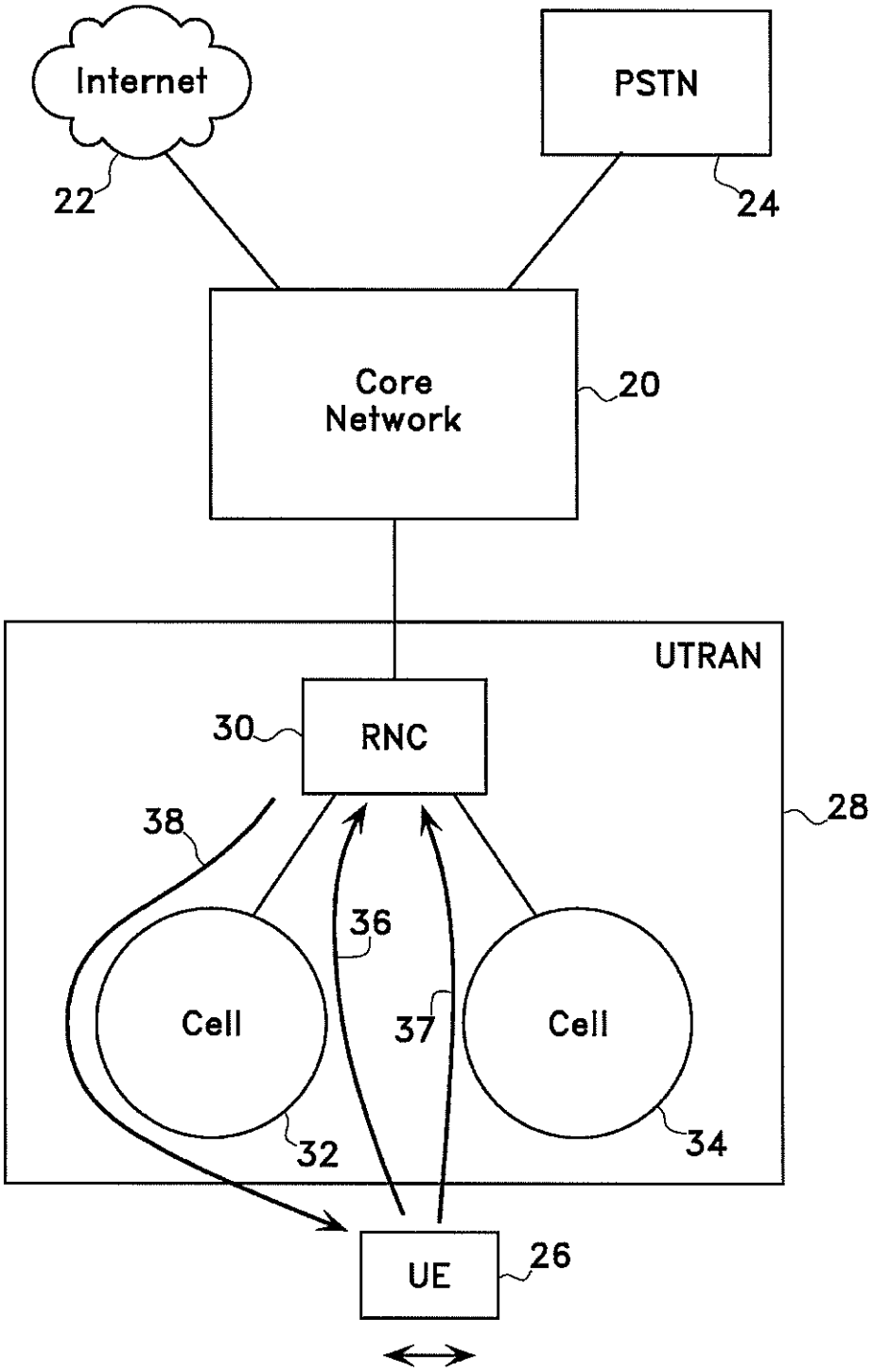

Internet
PSTN
22
24
Core Network
20
UTRAN
30
RNC
28
38
36
Cell
37
Cell
32
34
UE
26

FIG. 1

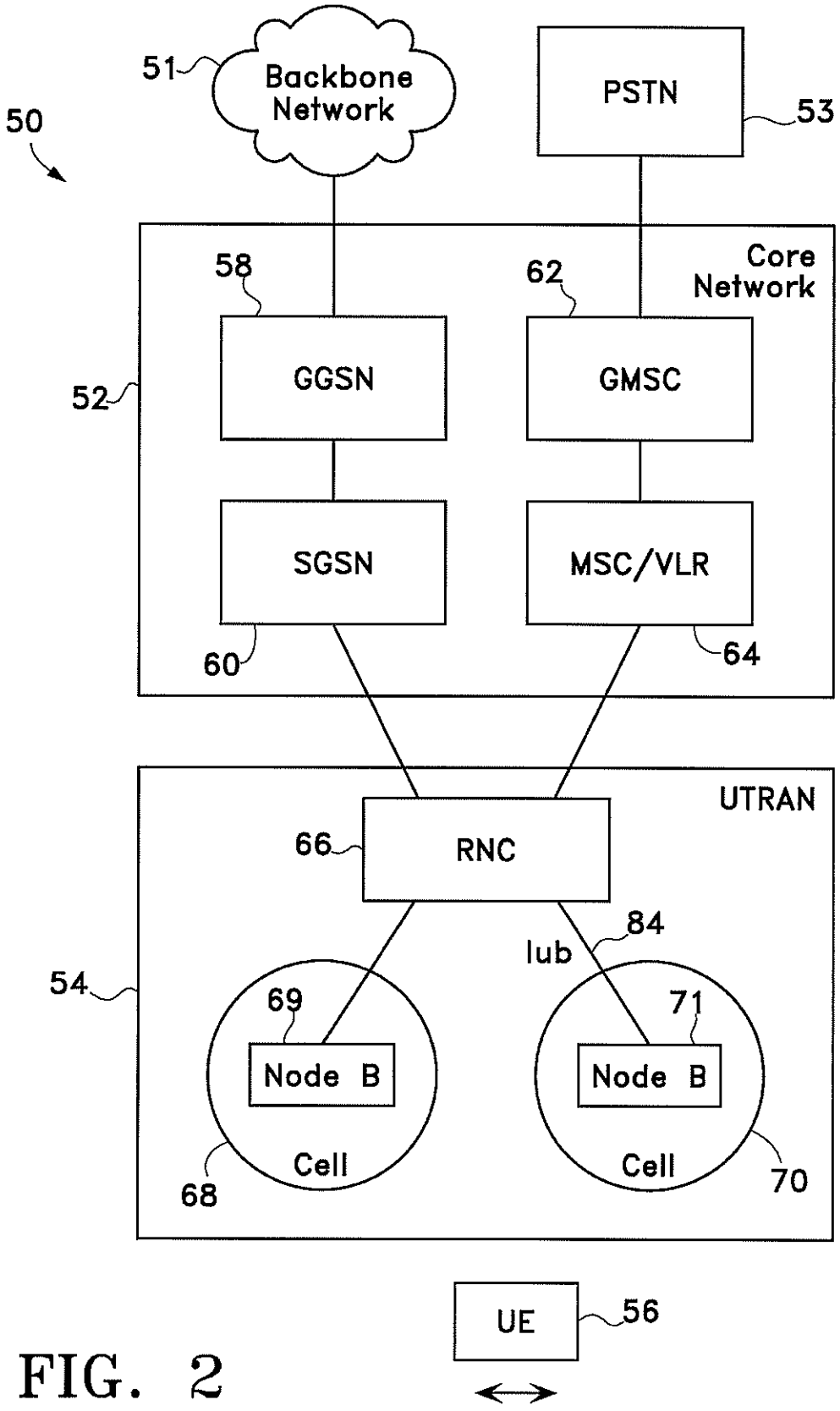
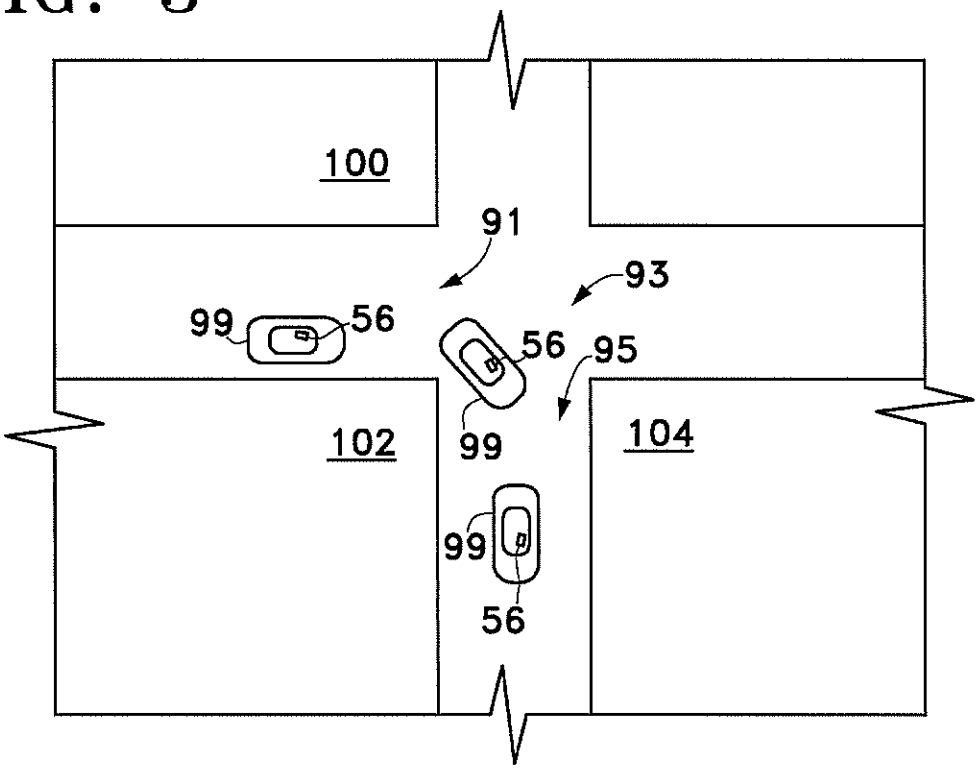

50
51
Backbone Network
PSTN
53
Core Network
58
62
GGSN
GMSC
52
SGSN
MSC/VLR
60
64
UTRAN
66
RNC
84
Iub
54
69
71
Node B
Node B
Cell
Cell
68
70
UE
56

FIG. 2

FIG. 3


100
91
93
99
56
56
95
102
99
104
99
56

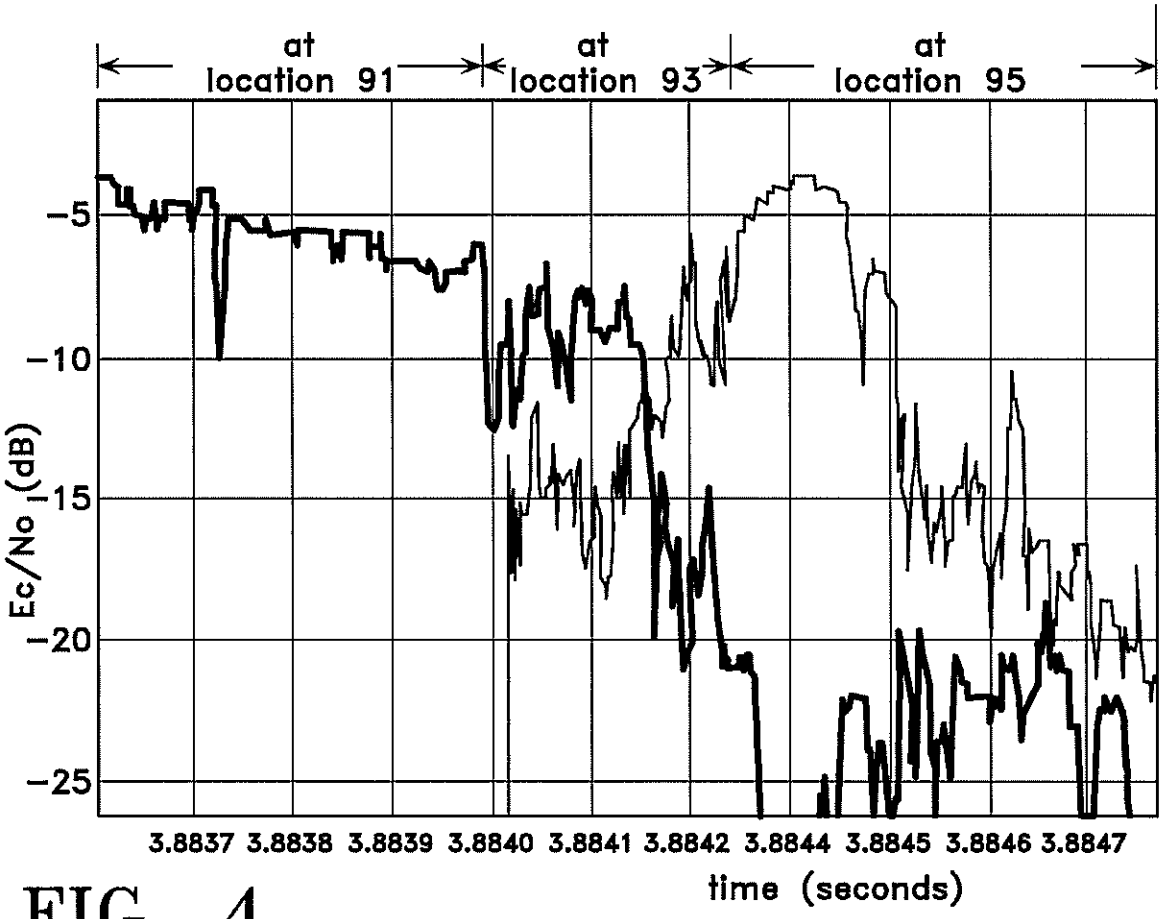

at location 91
at location 93
at location 95
−5
−10
−15
−20
−25
Ec/No (dB)
3.8837 3.8838 3.8839 3.8840 3.8841 3.8842 3.8844 3.8845 3.8846 3.8847
time (seconds)

FIG. 4

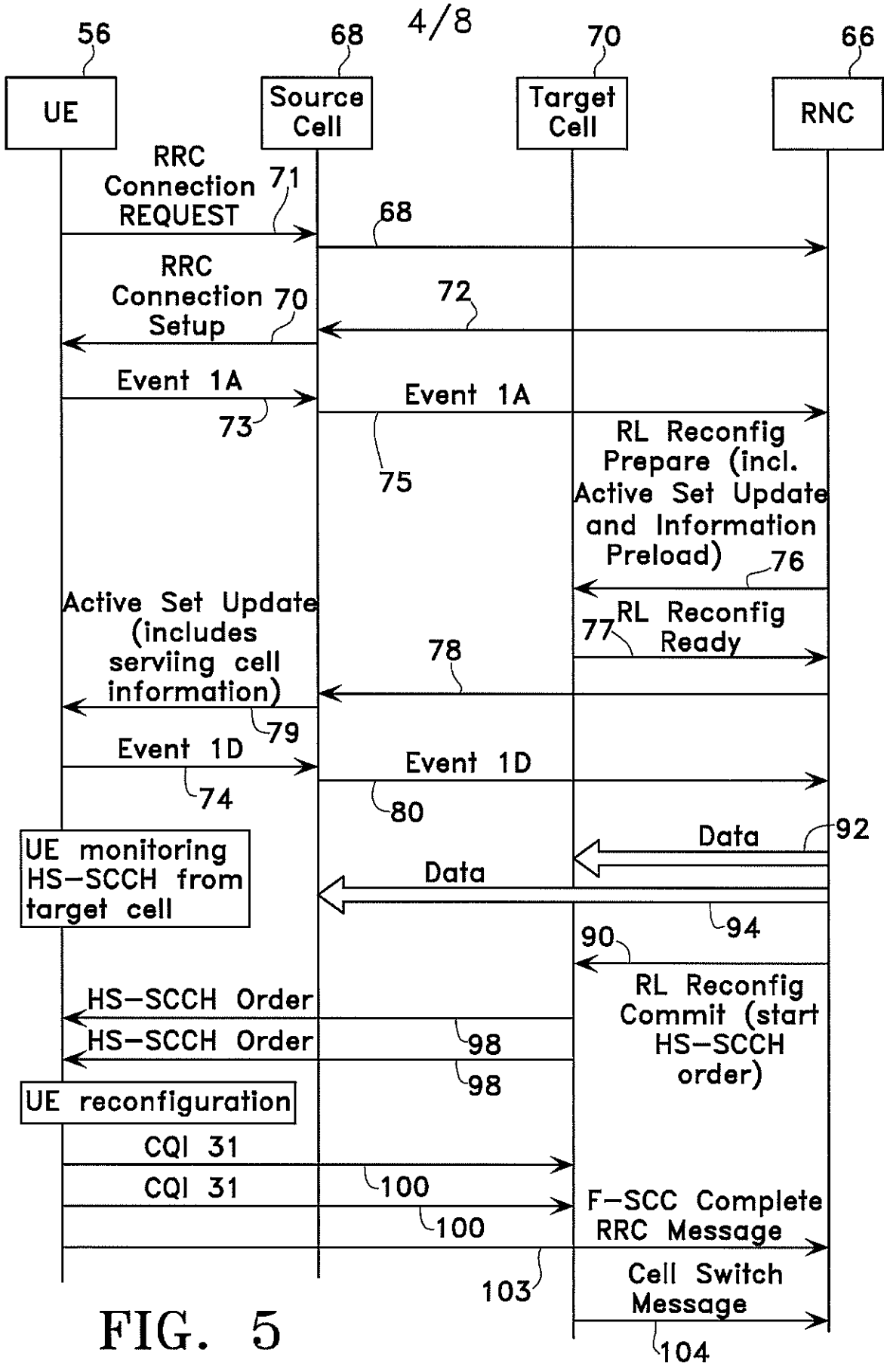

56
68
70
66
UE
Source Cell
Target Cell
RNC
RRC Connection REQUEST
71
68
RRC Connection Setup
70
72
Event 1A
73
Event 1A
75
RL Reconfig Prepare (incl. Active Set Update and Information Preload)
76
Active Set Update (includes serviing cell information)
79
RL Reconfig Ready
77
78
Event 1D
74
Event 1D
80
UE monitoring HS-SCCH from target cell
Data
92
Data
94
90
RL Reconfig Commit (start HS-SCCH order)
HS-SCCH Order
HS-SCCH Order
98
98
UE reconfiguration
CQI 31
CQI 31
100
100
F-SCC Complete RRC Message
103
Cell Switch Message
104

FIG. 5

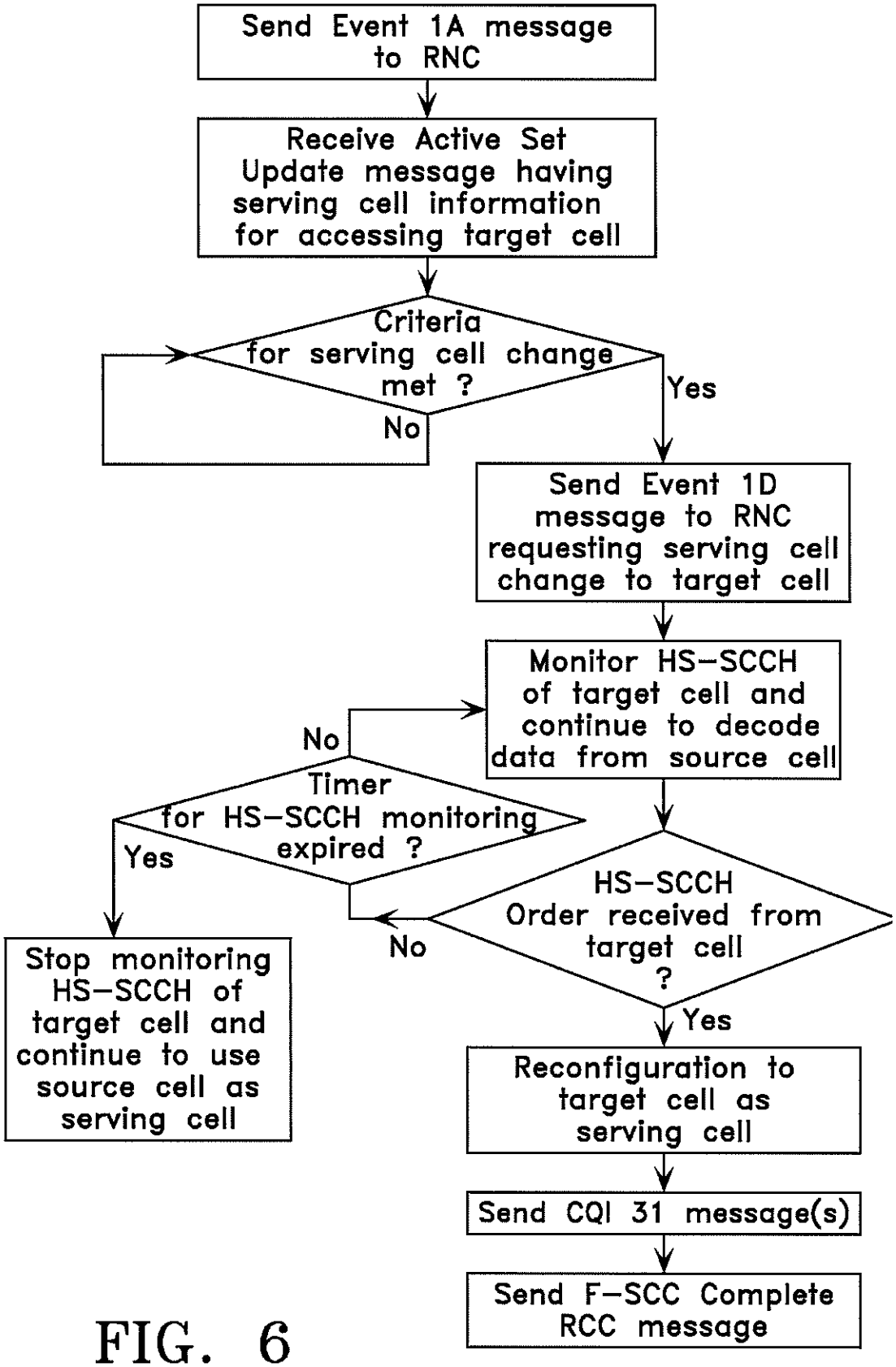

Send Event 1A message to RNC
Receive Active Set Update message having serving cell information for accessing target cell
Criteria for serving cell change met ?
No
Yes
Send Event 1D message to RNC requesting serving cell change to target cell
Monitor HS-SCCH of target cell and continue to decode data from source cell
Timer for HS-SCCH monitoring expired ?
No
Yes
HS-SCCH Order received from target cell ?
No
Yes
Stop monitoring HS-SCCH of target cell and continue to use source cell as serving cell
Reconfiguration to target cell as serving cell
Send CQI 31 message(s)
Send F-SCC Complete RCC message

FIG. 6

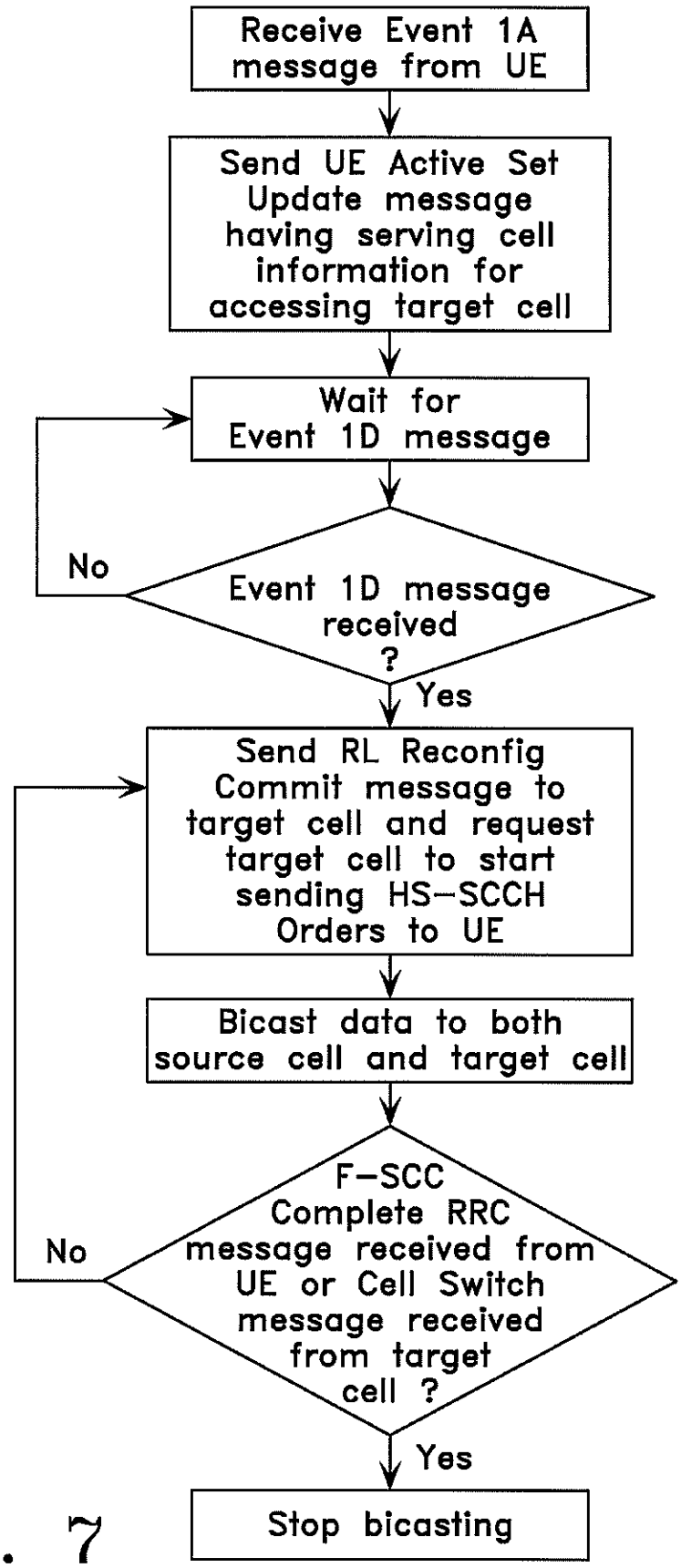
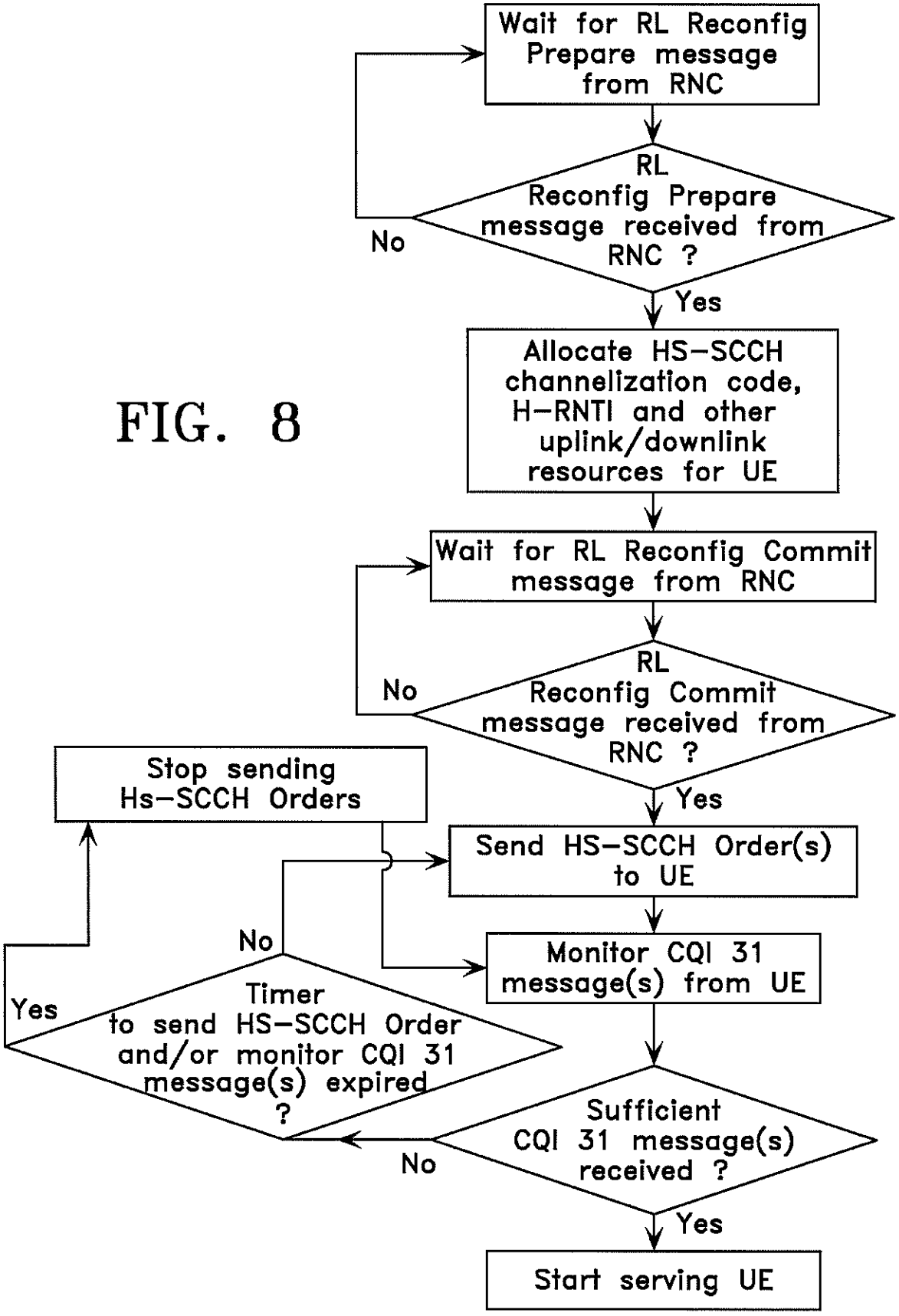

Receive Event 1A message from UE
Send UE Active Set Update message having serving cell information for accessing target cell
Wait for Event 1D message
Event 1D message received ?
No
Yes
Send RL Reconfig Commit message to target cell and request target cell to start sending HS-SCCH Orders to UE
Bicast data to both source cell and target cell
F-SCC Complete RRC message received from UE or Cell Switch message received from target cell ?
No
Yes
Stop bicasting

FIG. 7

FIG. 8


Wait for RL Reconfig Prepare message from RNC
RL Reconfig Prepare message received from RNC ?
No
Yes
Allocate HS-SCCH channelization code, H-RNTI and other uplink/downlink resources for UE
Wait for RL Reconfig Commit message from RNC
RL Reconfig Commit message received from RNC ?
No
Yes
Stop sending Hs-SCCH Orders
Send HS-SCCH Order(s) to UE
Monitor CQI 31 message(s) from UE
Timer to send HS-SCCH Order and/or monitor CQI 31 message(s) expired ?
No
Yes
Sufficient CQI 31 message(s) received ?
No
Yes
Start serving UE

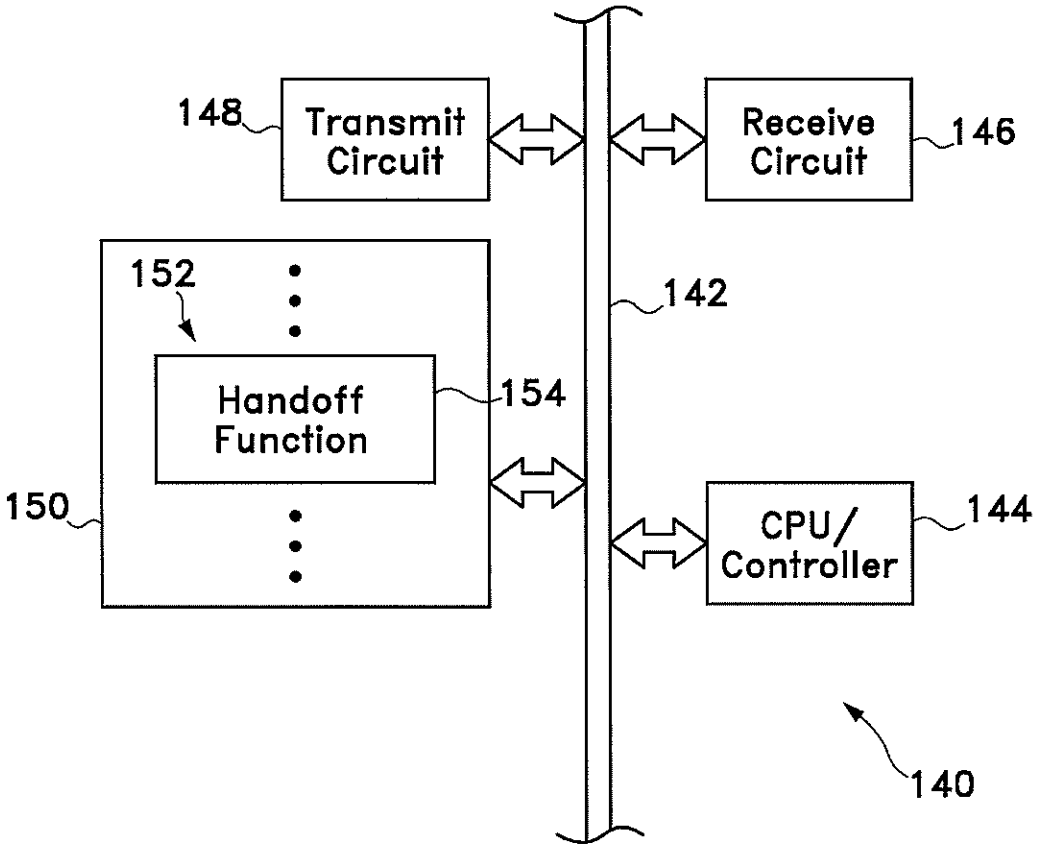

148
Transmit Circuit
Receive Circuit
146
152
142
Handoff Function
154
150
CPU/ Controller
144
140

FIG. 9