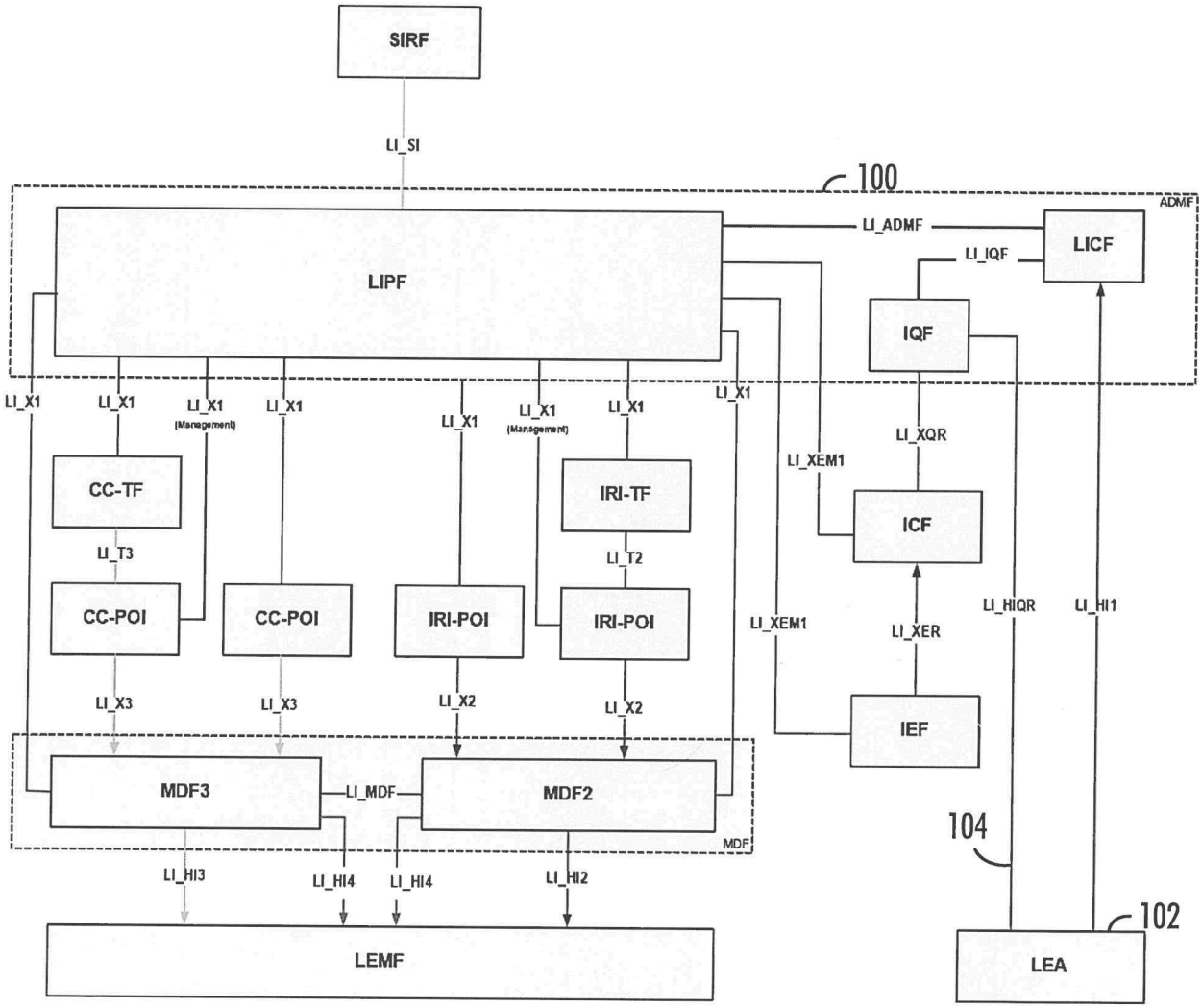

SIRF
LI_SI
100
ADMF
LIPF
LI_ADMF
LICF
LI_IQF
IQF
LI_X1
LI_X1
LI_X1
(Management)
LI_X1
LI_X1
LI_X1
LI_X1
(Management)
LI_X1
LI_X1
LI_XQR
LI_XEM1
CC-TF
IRI-TF
ICF
LI_T3
LI_T2
CC-POI
CC-POI
IRI-POI
IRI-POI
LI_XEM1
LI_HIQR
LI_HI1
LI_XER
LI_X3
LI_X3
LI_X2
LI_X2
IEF
MDF3
LI_MDF
MDF2
MDF
104
LI_HI3
LI_HI4
LI_HI4
LI_HI2
102
LEMF
LEA

FIG. 1

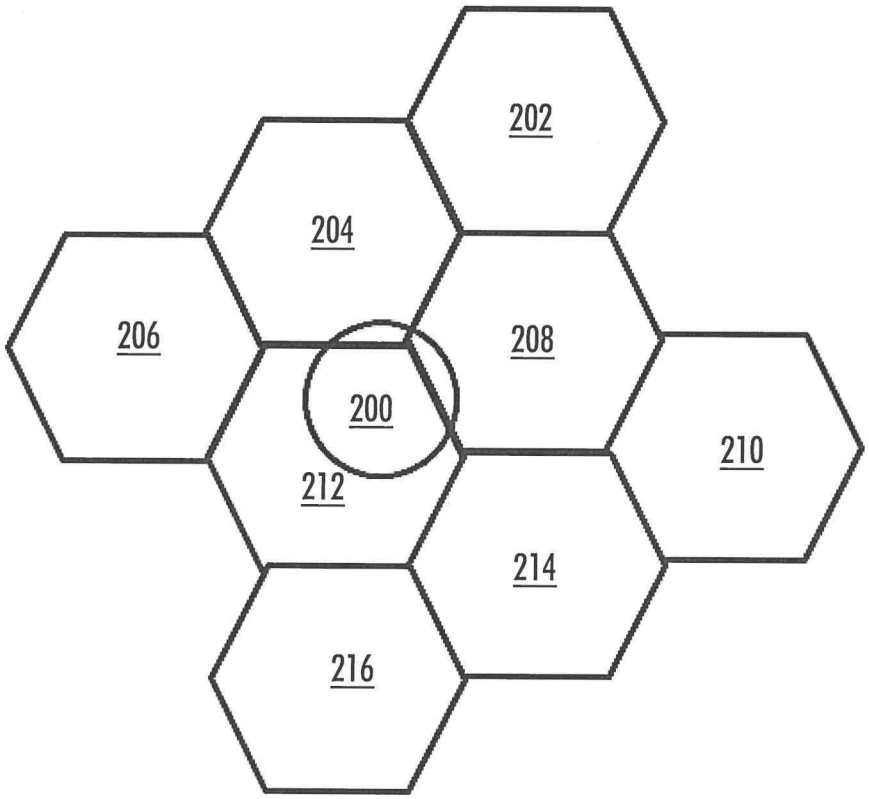


FIG. 2

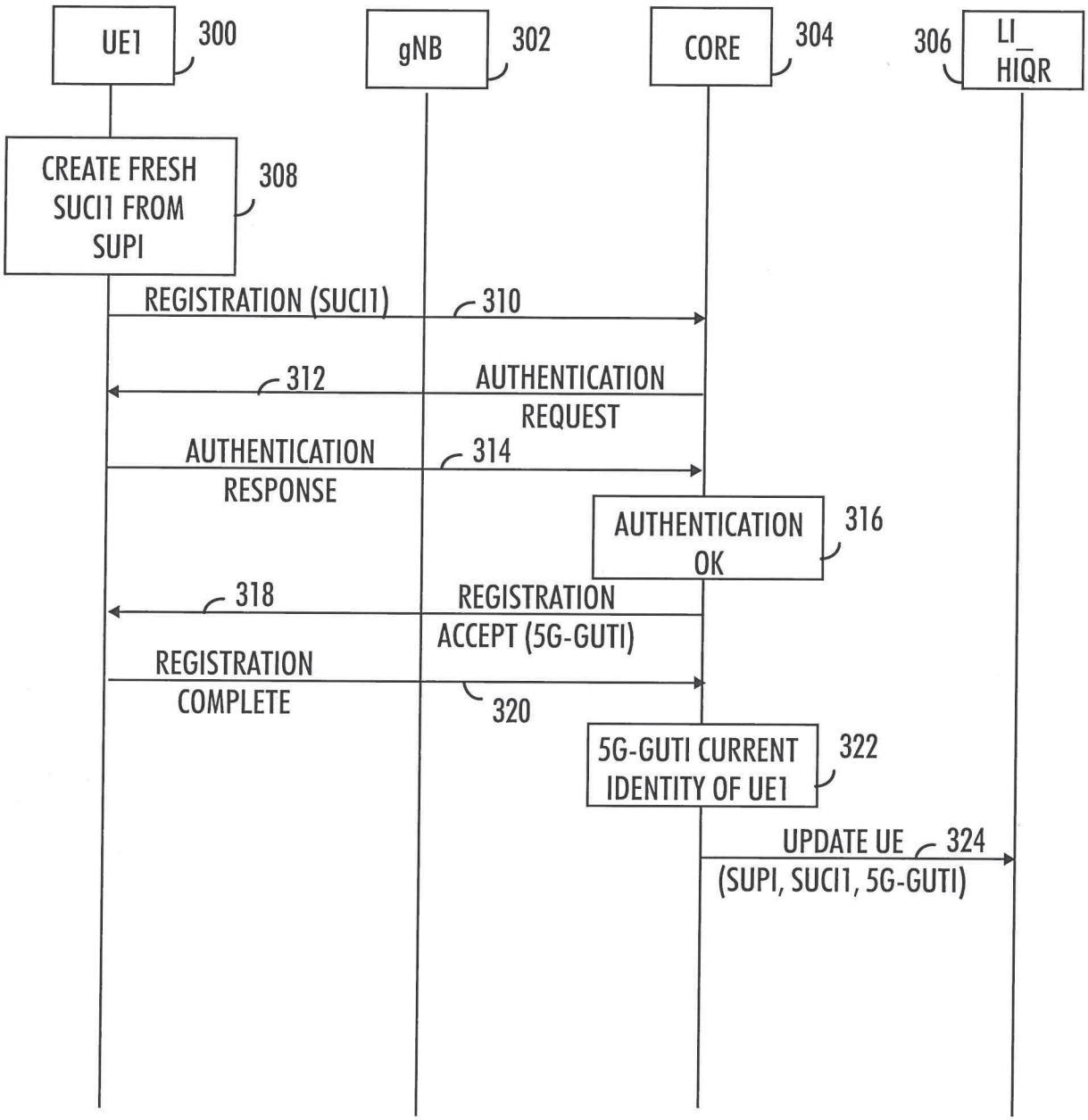

UE1
300
gNB
302
CORE
304
306
LI_HIQR
CREATE FRESH SUCI1 FROM SUPI
308
REGISTRATION (SUCI1)
310
312
AUTHENTICATION REQUEST
AUTHENTICATION RESPONSE
314
AUTHENTICATION OK
316
318
REGISTRATION ACCEPT (5G-GUTI)
REGISTRATION COMPLETE
320
5G-GUTI CURRENT IDENTITY OF UE1
322
UPDATE UE
324
(SUPI, SUCI1, 5G-GUTI)

FIG. 3

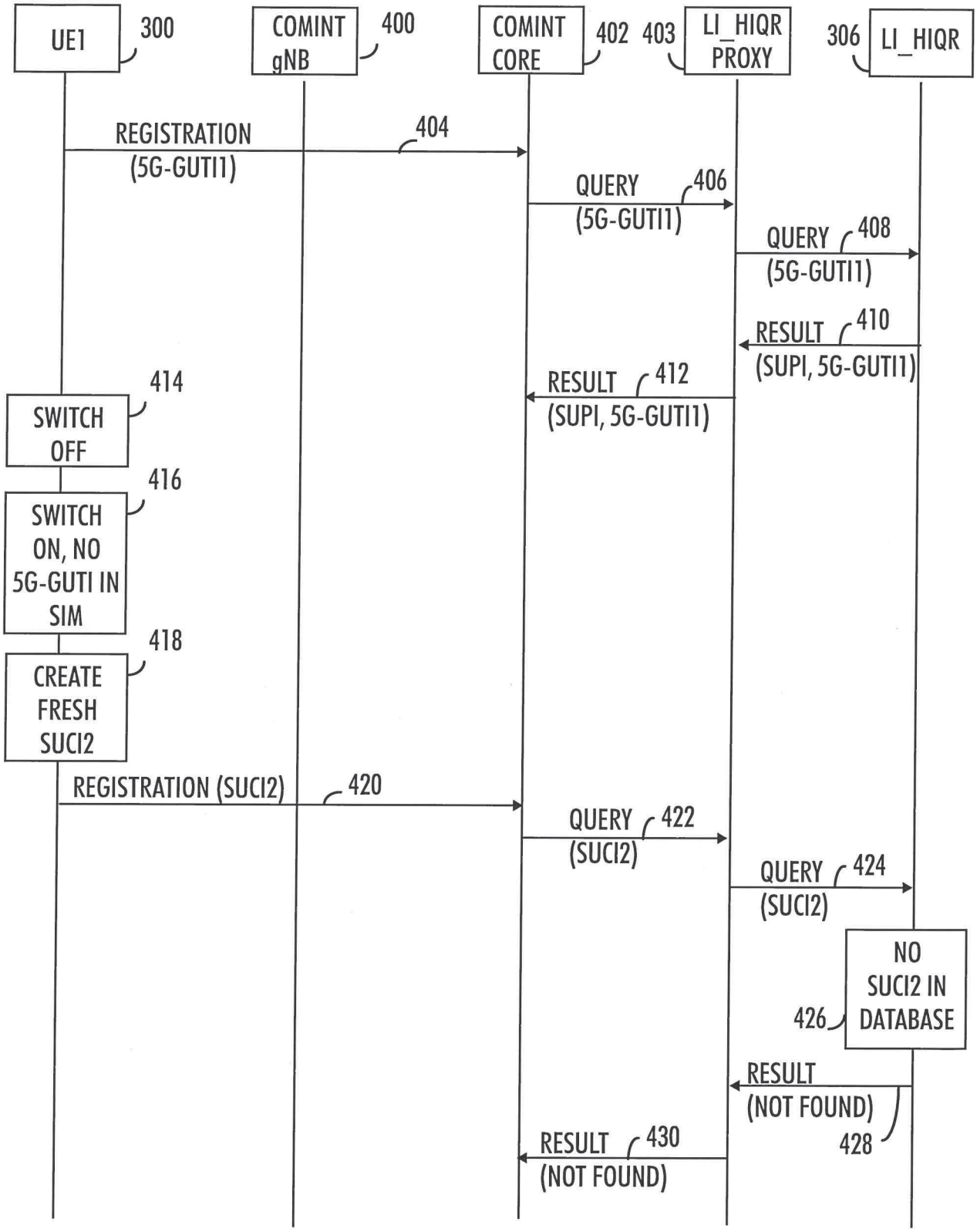

UE1
300
COMINT gNB
400
COMINT CORE
402
403
LI_HIQR PROXY
306
LI_HIQR
REGISTRATION (5G-GUTI1)
404
QUERY (5G-GUTI1)
406
QUERY (5G-GUTI1)
408
RESULT (SUPI, 5G-GUTI1)
410
RESULT (SUPI, 5G-GUTI1)
412
414
SWITCH OFF
416
SWITCH ON, NO 5G-GUTI IN SIM
418
CREATE FRESH SUCI2
REGISTRATION (SUCI2)
420
QUERY (SUCI2)
422
QUERY (SUCI2)
424
NO SUCI2 IN DATABASE
426
RESULT (NOT FOUND)
428
RESULT (NOT FOUND)
430

FIG. 4

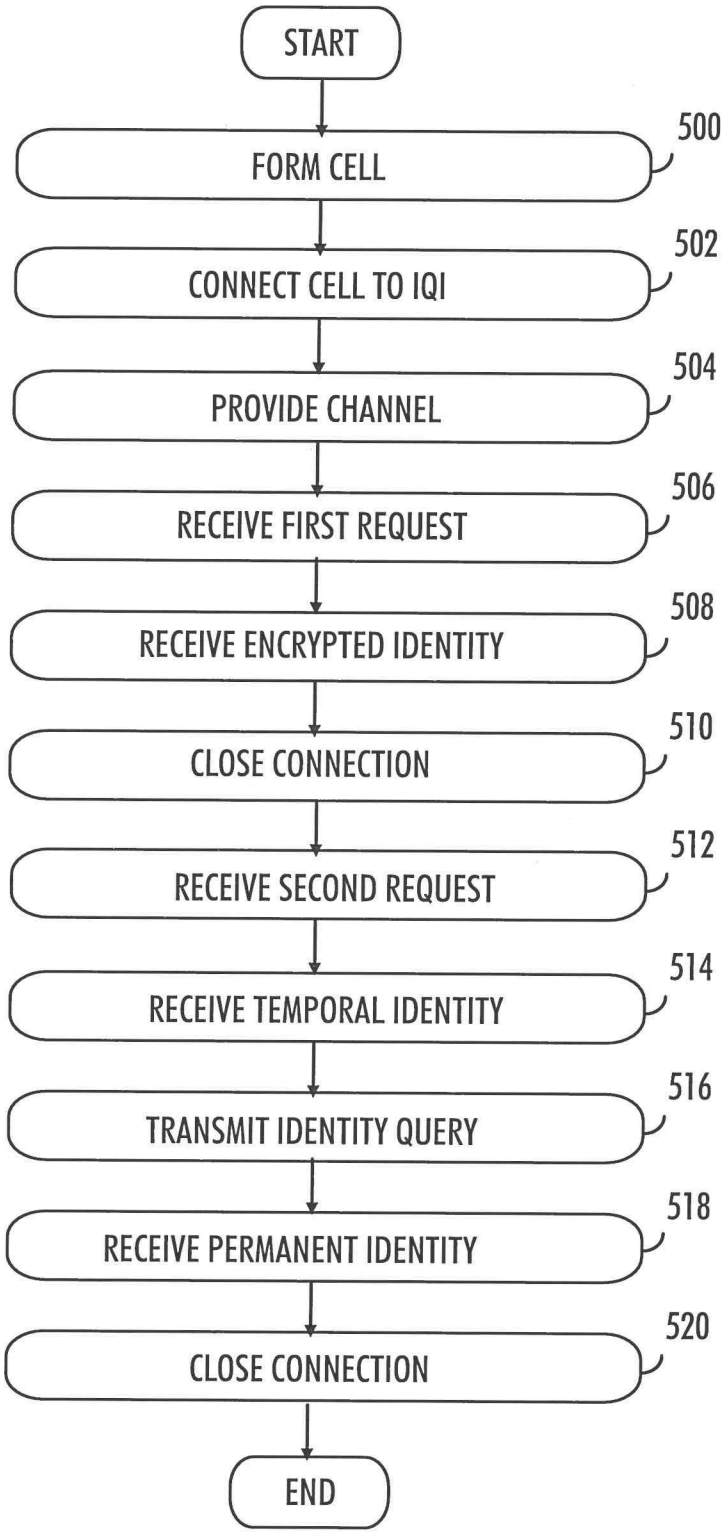

START
FORM CELL
500
CONNECT CELL TO IQI
502
PROVIDE CHANNEL
504
RECEIVE FIRST REQUEST
506
RECEIVE ENCRYPTED IDENTITY
508
CLOSE CONNECTION
510
RECEIVE SECOND REQUEST
512
RECEIVE TEMPORAL IDENTITY
514
TRANSMIT IDENTITY QUERY
516
RECEIVE PERMANENT IDENTITY
518
CLOSE CONNECTION
520
END

FIG. 5

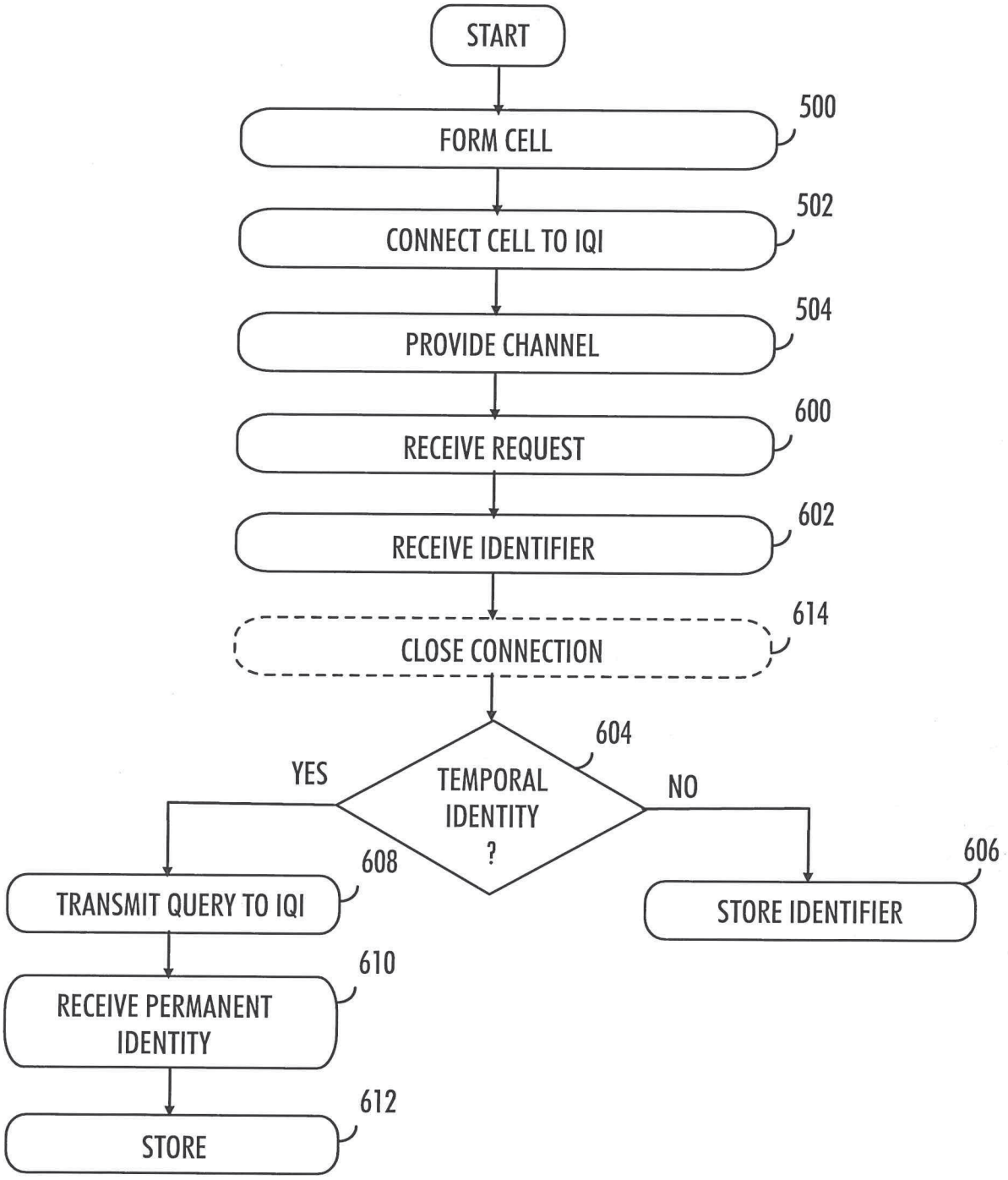

START
FORM CELL
500
CONNECT CELL TO IQI
502
PROVIDE CHANNEL
504
RECEIVE REQUEST
600
RECEIVE IDENTIFIER
602
CLOSE CONNECTION
614
TEMPORAL IDENTITY ?
604
YES
NO
TRANSMIT QUERY TO IQI
608
STORE IDENTIFIER
606
RECEIVE PERMANENT IDENTITY
610
STORE
612

FIG. 6A

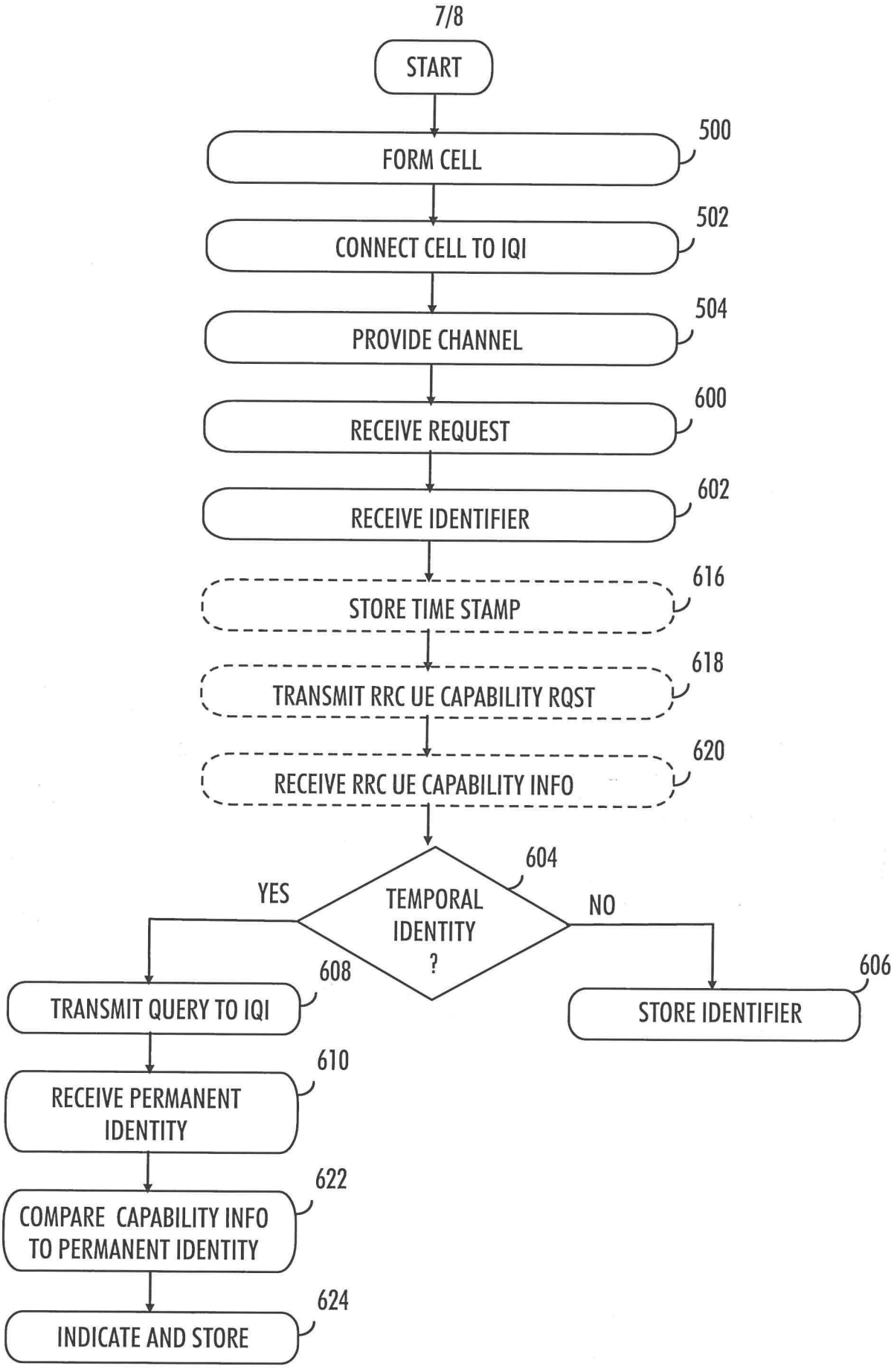

START
FORM CELL
500
CONNECT CELL TO IQI
502
PROVIDE CHANNEL
504
RECEIVE REQUEST
600
RECEIVE IDENTIFIER
602
STORE TIME STAMP
616
TRANSMIT RRC UE CAPABILITY RQST
618
RECEIVE RRC UE CAPABILITY INFO
620
TEMPORAL IDENTITY ?
604
YES
NO
TRANSMIT QUERY TO IQI
608
STORE IDENTIFIER
606
RECEIVE PERMANENT IDENTITY
610
COMPARE CAPABILITY INFO TO PERMANENT IDENTITY
622
INDICATE AND STORE
624

FIG. 6B

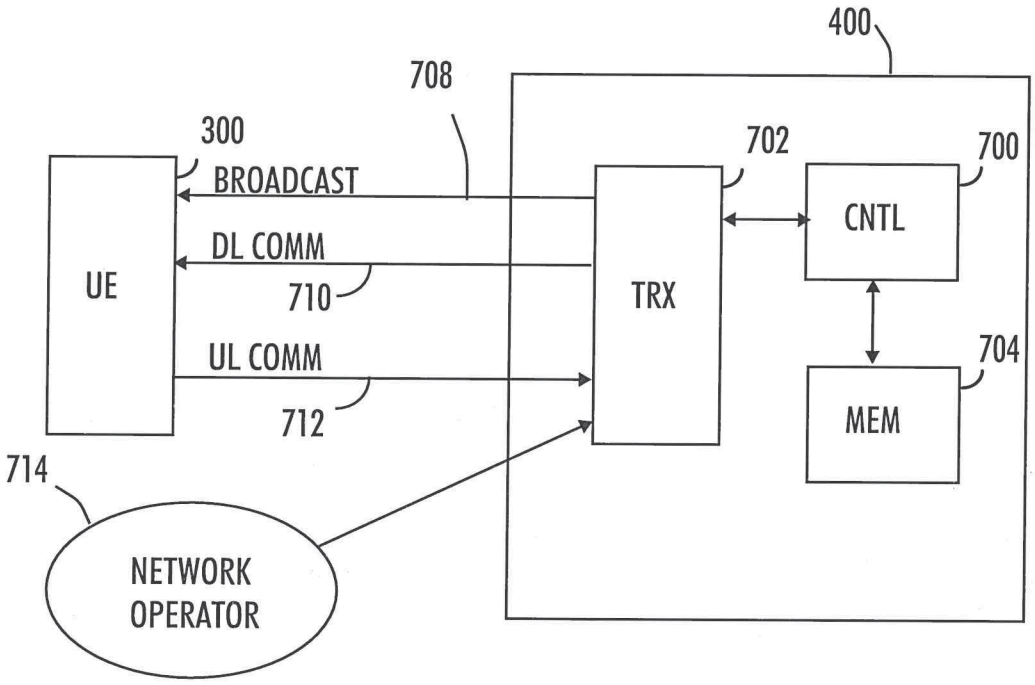

400
708
300
702
700
BROADCAST
CNTL
DL COMM
UE
710
TRX
UL COMM
704
712
MEM
714
NETWORK
OPERATOR

FIG. 7