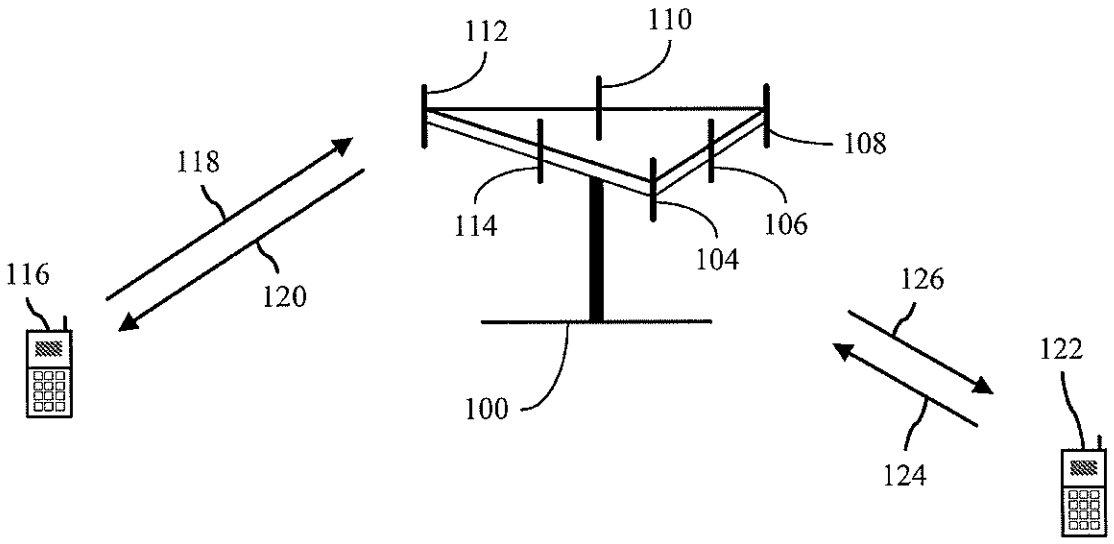

FIG. 1

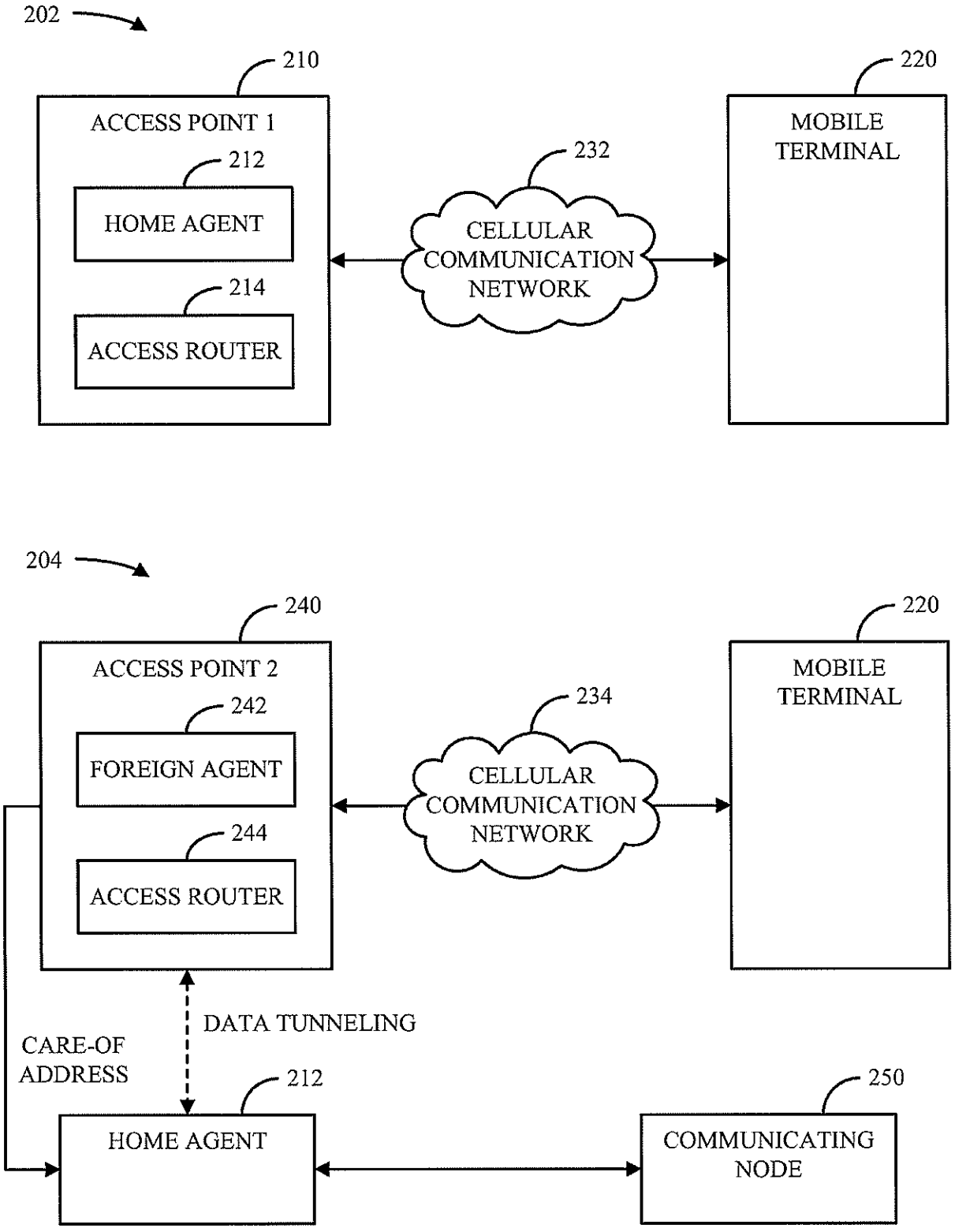
202
210
ACCESS POINT 1
212
HOME AGENT
214
ACCESS ROUTER
232
CELLULAR COMMUNICATION NETWORK
220
MOBILE TERMINAL
204
240
ACCESS POINT 2
242
FOREIGN AGENT
244
ACCESS ROUTER
234
CELLULAR COMMUNICATION NETWORK
220
MOBILE TERMINAL
DATA TUNNELING
CARE-OF ADDRESS
212
HOME AGENT
250
COMMUNICATING NODE

FIG. 2

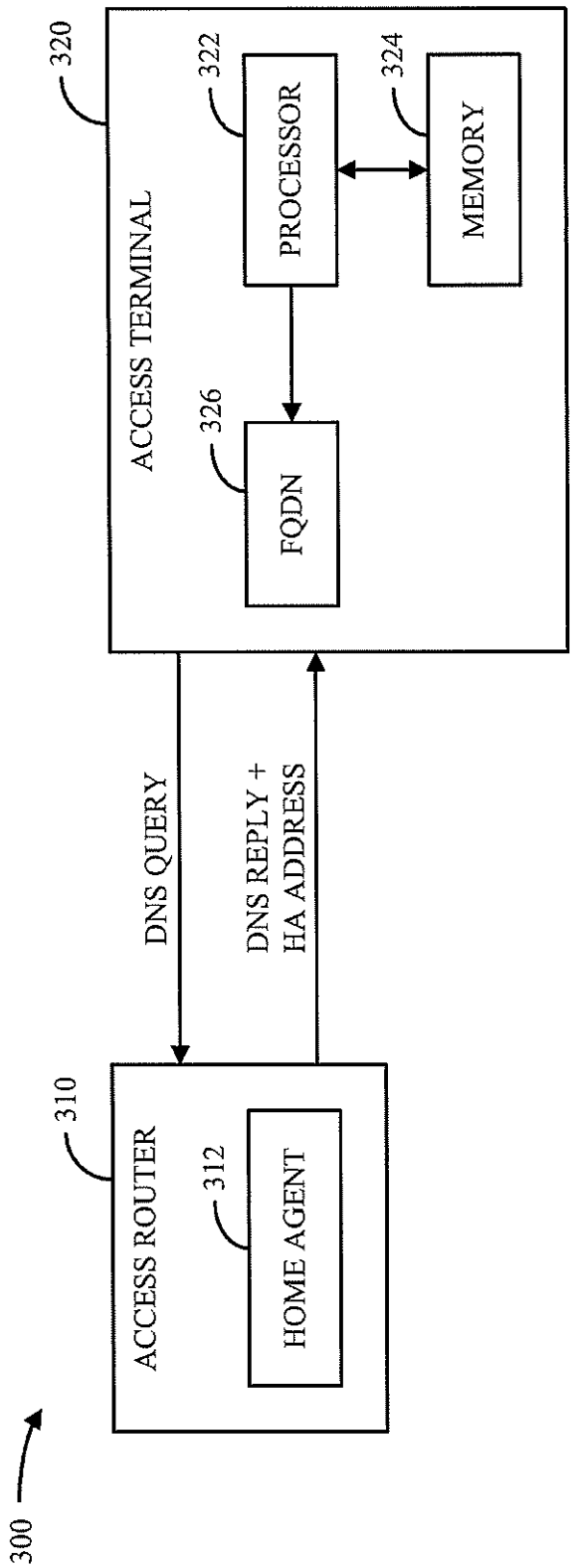
300
310
ACCESS ROUTER
312
HOME AGENT
DNS QUERY
DNS REPLY +
HA ADDRESS
320
ACCESS TERMINAL
322
PROCESSOR
324
MEMORY
326
FQDN

FIG. 3

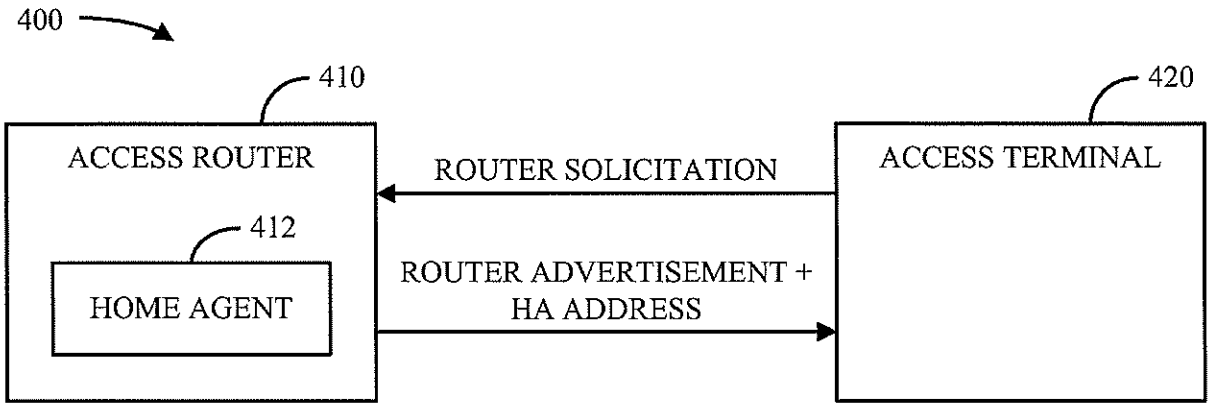
400
410
ACCESS ROUTER
412
HOME AGENT
ROUTER SOLICITATION
ROUTER ADVERTISEMENT +
HA ADDRESS
420
ACCESS TERMINAL

FIG. 4

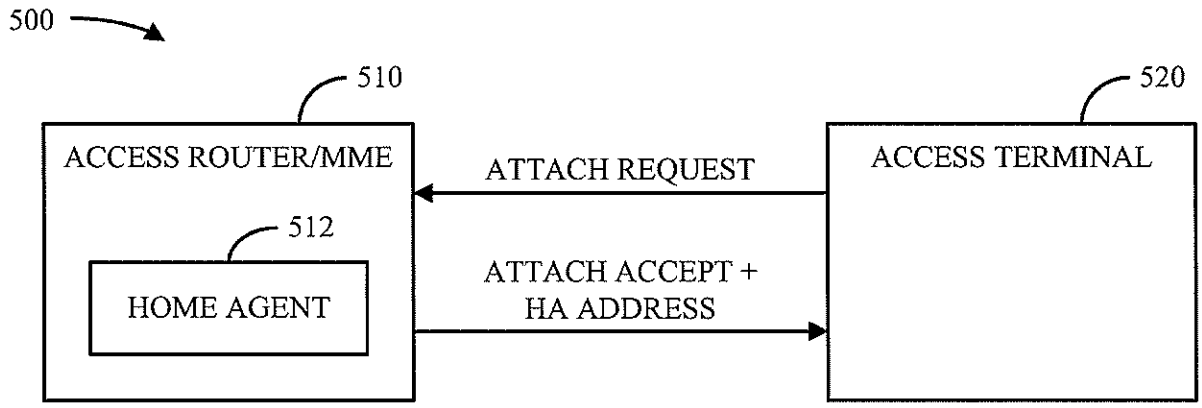
500
510
ACCESS ROUTER/MME
512
HOME AGENT
ATTACH REQUEST
ATTACH ACCEPT +
HA ADDRESS
520
ACCESS TERMINAL

FIG. 5

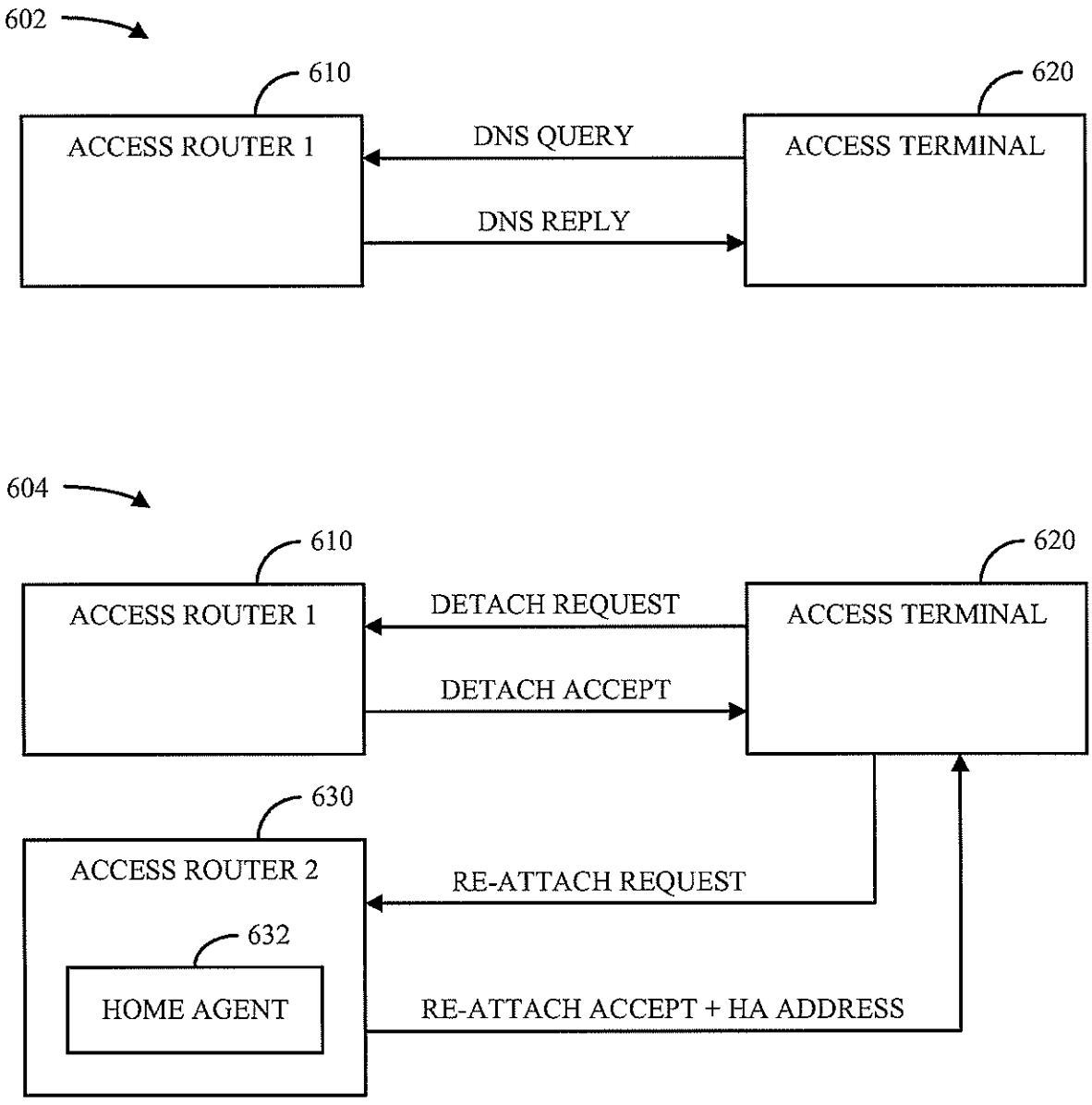
602
610
ACCESS ROUTER 1
620
ACCESS TERMINAL
DNS QUERY
DNS REPLY
604
610
ACCESS ROUTER 1
620
ACCESS TERMINAL
DETACH REQUEST
DETACH ACCEPT
630
ACCESS ROUTER 2
632
HOME AGENT
RE-ATTACH REQUEST
RE-ATTACH ACCEPT + HA ADDRESS

FIG. 6

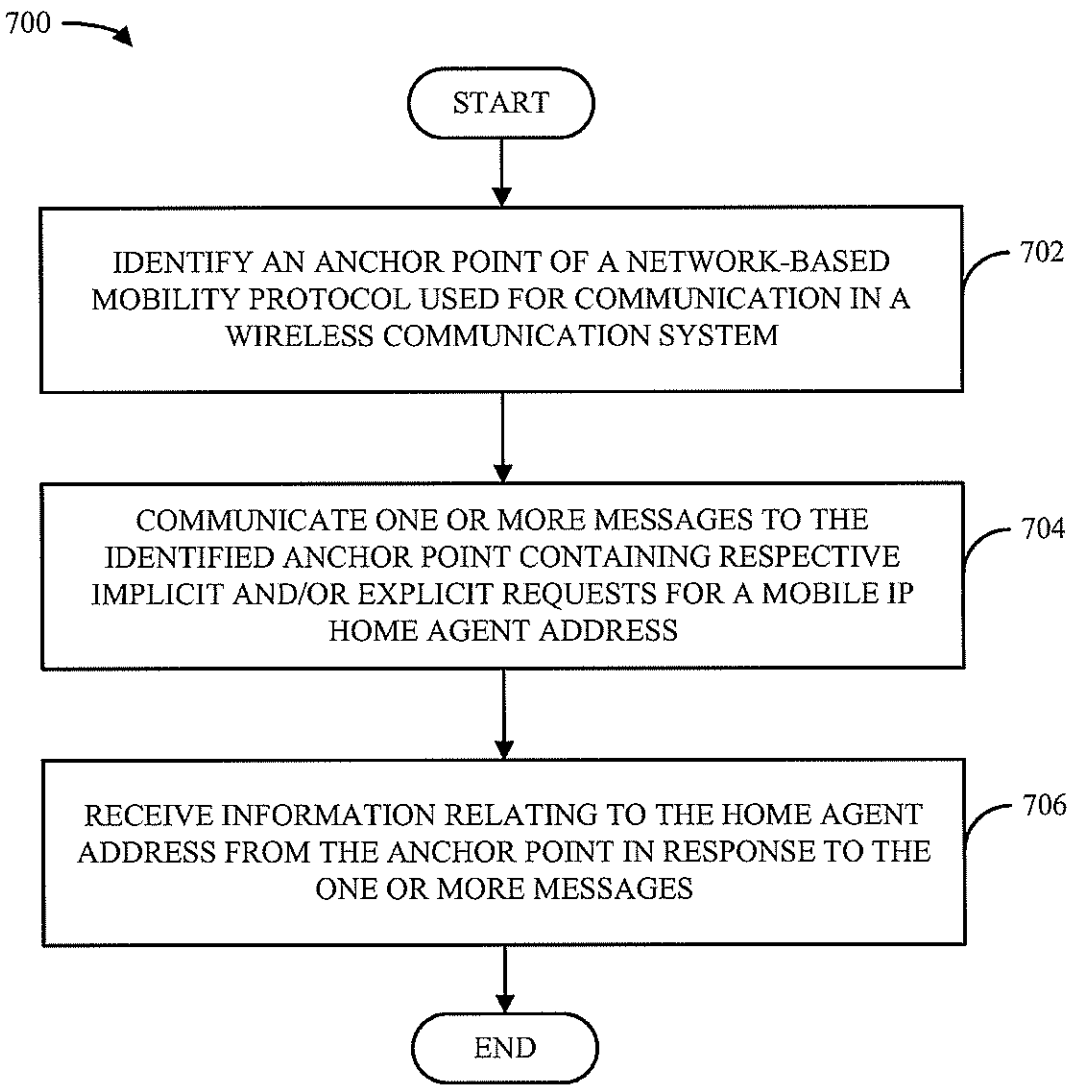
700
START
IDENTIFY AN ANCHOR POINT OF A NETWORK-BASED MOBILITY PROTOCOL USED FOR COMMUNICATION IN A WIRELESS COMMUNICATION SYSTEM
702
COMMUNICATE ONE OR MORE MESSAGES TO THE IDENTIFIED ANCHOR POINT CONTAINING RESPECTIVE IMPLICIT AND/OR EXPLICIT REQUESTS FOR A MOBILE IP HOME AGENT ADDRESS
704
RECEIVE INFORMATION RELATING TO THE HOME AGENT ADDRESS FROM THE ANCHOR POINT IN RESPONSE TO THE ONE OR MORE MESSAGES
706
END

FIG. 7

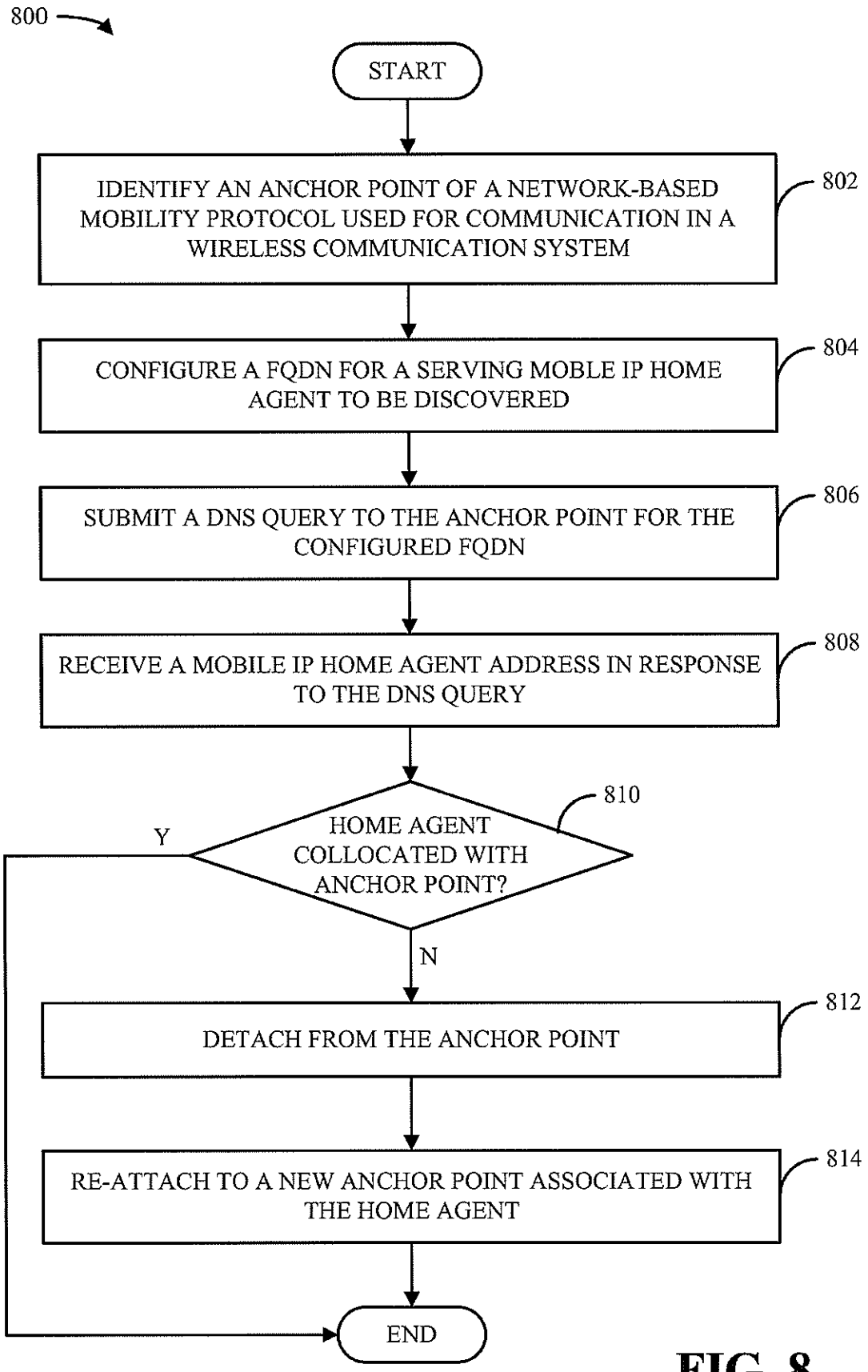
800
START
IDENTIFY AN ANCHOR POINT OF A NETWORK-BASED MOBILITY PROTOCOL USED FOR COMMUNICATION IN A WIRELESS COMMUNICATION SYSTEM
802
CONFIGURE A FQDN FOR A SERVING MOBLE IP HOME AGENT TO BE DISCOVERED
804
SUBMIT A DNS QUERY TO THE ANCHOR POINT FOR THE CONFIGURED FQDN
806
RECEIVE A MOBILE IP HOME AGENT ADDRESS IN RESPONSE TO THE DNS QUERY
808
HOME AGENT COLLOCATED WITH ANCHOR POINT?
810
Y
N
DETACH FROM THE ANCHOR POINT
812
RE-ATTACH TO A NEW ANCHOR POINT ASSOCIATED WITH THE HOME AGENT
814
END

FIG. 8

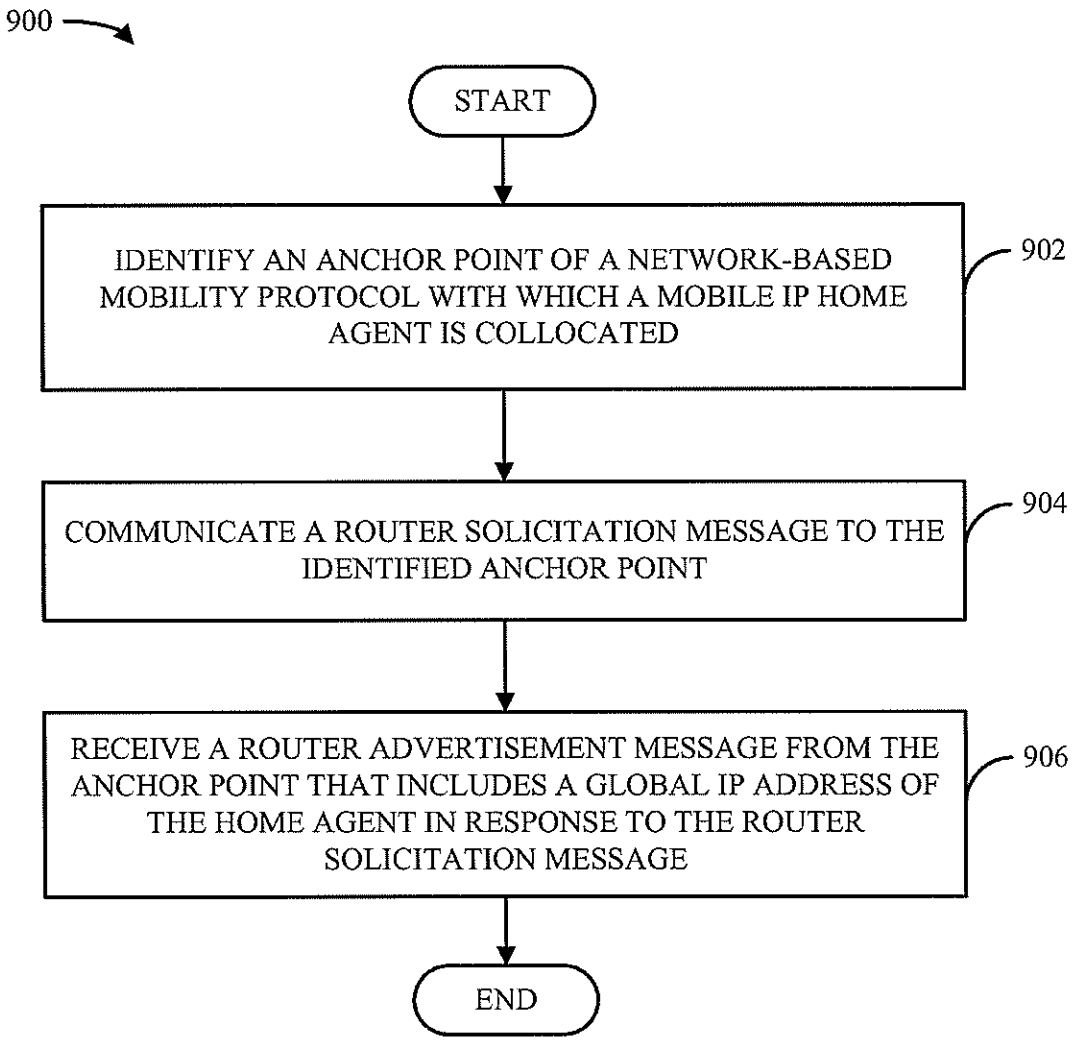
900
START
IDENTIFY AN ANCHOR POINT OF A NETWORK-BASED MOBILITY PROTOCOL WITH WHICH A MOBILE IP HOME AGENT IS COLLOCATED
902
COMMUNICATE A ROUTER SOLICITATION MESSAGE TO THE IDENTIFIED ANCHOR POINT
904
RECEIVE A ROUTER ADVERTISEMENT MESSAGE FROM THE ANCHOR POINT THAT INCLUDES A GLOBAL IP ADDRESS OF THE HOME AGENT IN RESPONSE TO THE ROUTER SOLICITATION MESSAGE
906
END

FIG. 9

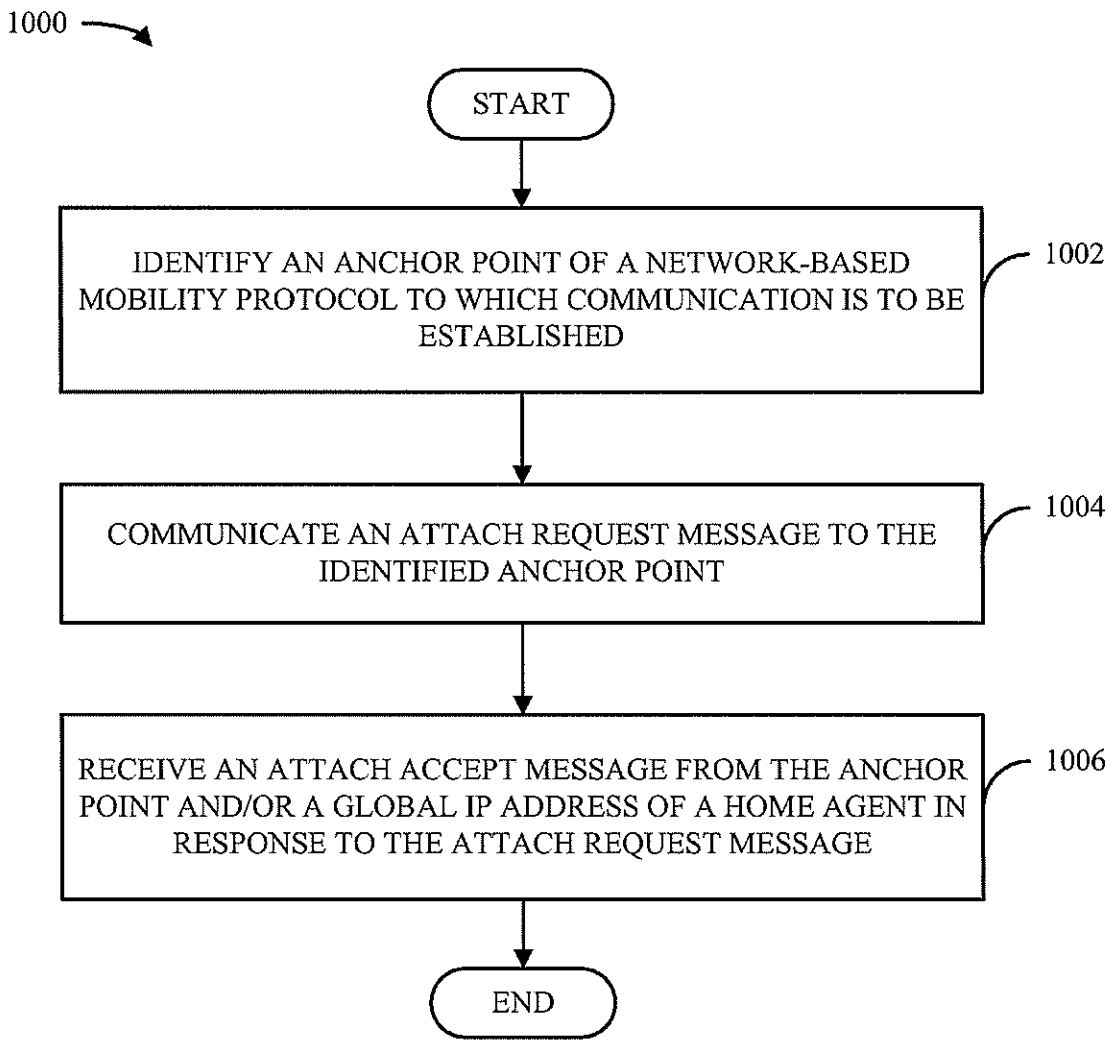
1000
START
IDENTIFY AN ANCHOR POINT OF A NETWORK-BASED MOBILITY PROTOCOL TO WHICH COMMUNICATION IS TO BE ESTABLISHED
1002
COMMUNICATE AN ATTACH REQUEST MESSAGE TO THE IDENTIFIED ANCHOR POINT
1004
RECEIVE AN ATTACH ACCEPT MESSAGE FROM THE ANCHOR POINT AND/OR A GLOBAL IP ADDRESS OF A HOME AGENT IN RESPONSE TO THE ATTACH REQUEST MESSAGE
1006
END

FIG. 10

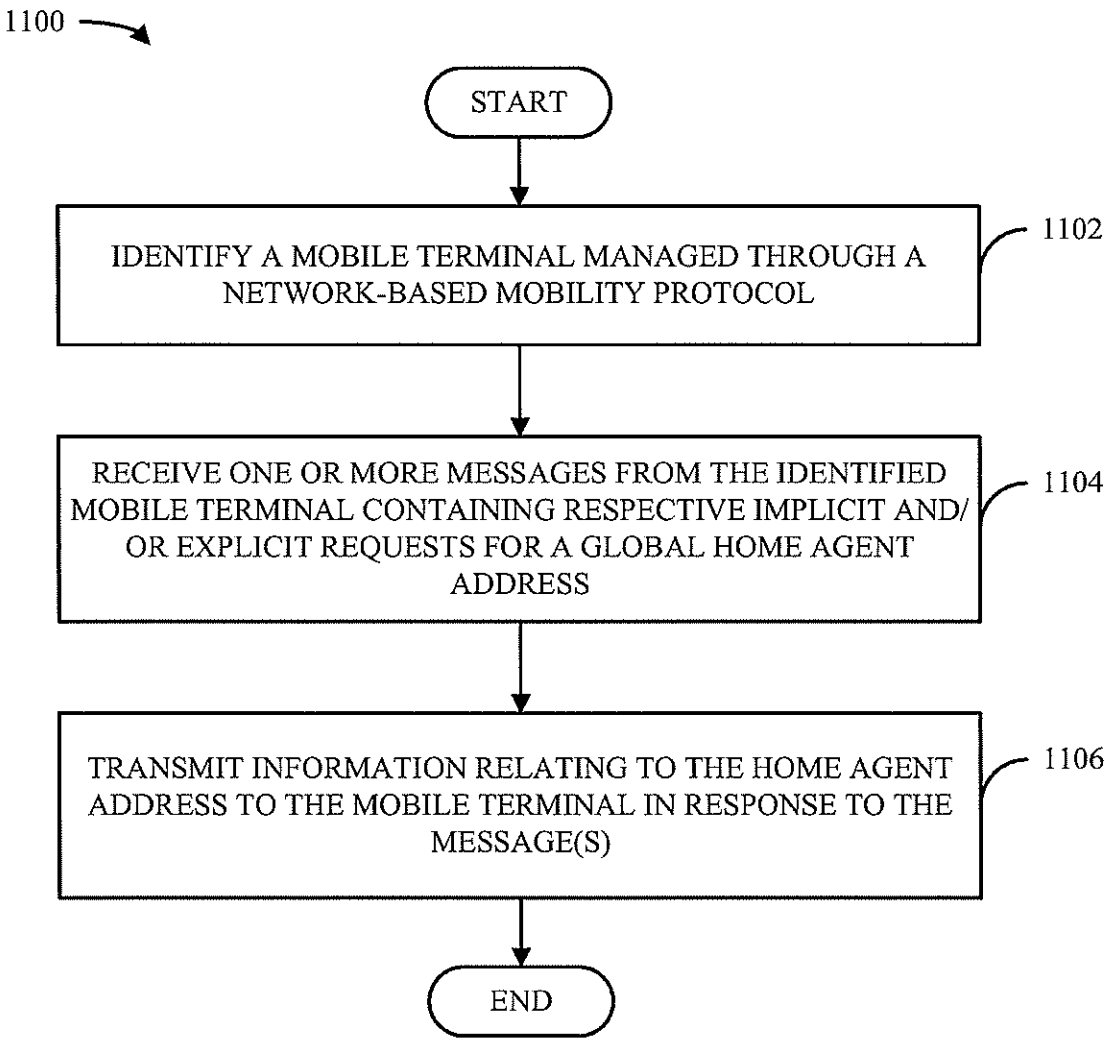
1100
START
IDENTIFY A MOBILE TERMINAL MANAGED THROUGH A NETWORK-BASED MOBILITY PROTOCOL
1102
RECEIVE ONE OR MORE MESSAGES FROM THE IDENTIFIED MOBILE TERMINAL CONTAINING RESPECTIVE IMPLICIT AND/OR EXPLICIT REQUESTS FOR A GLOBAL HOME AGENT ADDRESS
1104
TRANSMIT INFORMATION RELATING TO THE HOME AGENT ADDRESS TO THE MOBILE TERMINAL IN RESPONSE TO THE MESSAGE(S)
1106
END

FIG. 11

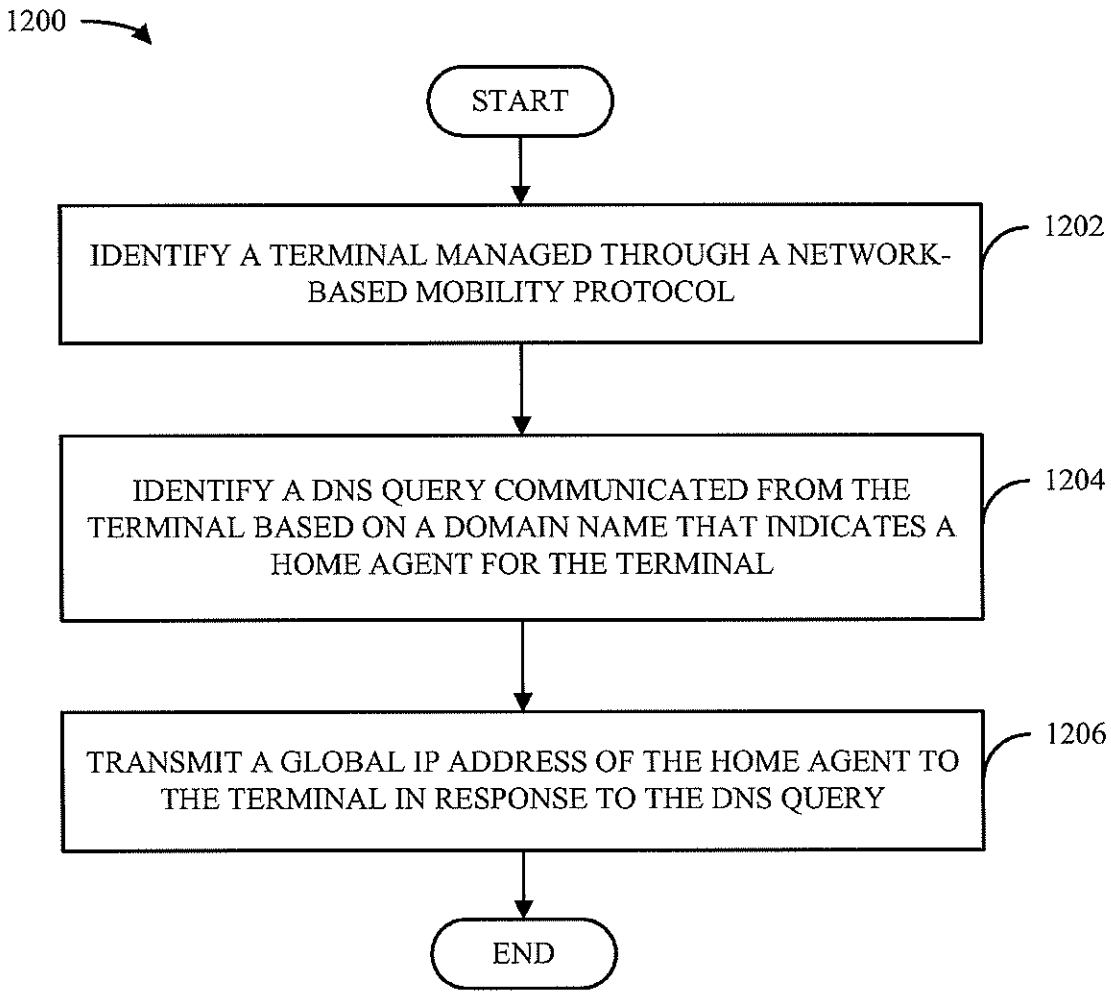
1200
START
IDENTIFY A TERMINAL MANAGED THROUGH A NETWORK-BASED MOBILITY PROTOCOL
1202
IDENTIFY A DNS QUERY COMMUNICATED FROM THE TERMINAL BASED ON A DOMAIN NAME THAT INDICATES A HOME AGENT FOR THE TERMINAL
1204
TRANSMIT A GLOBAL IP ADDRESS OF THE HOME AGENT TO THE TERMINAL IN RESPONSE TO THE DNS QUERY
1206
END

FIG. 12

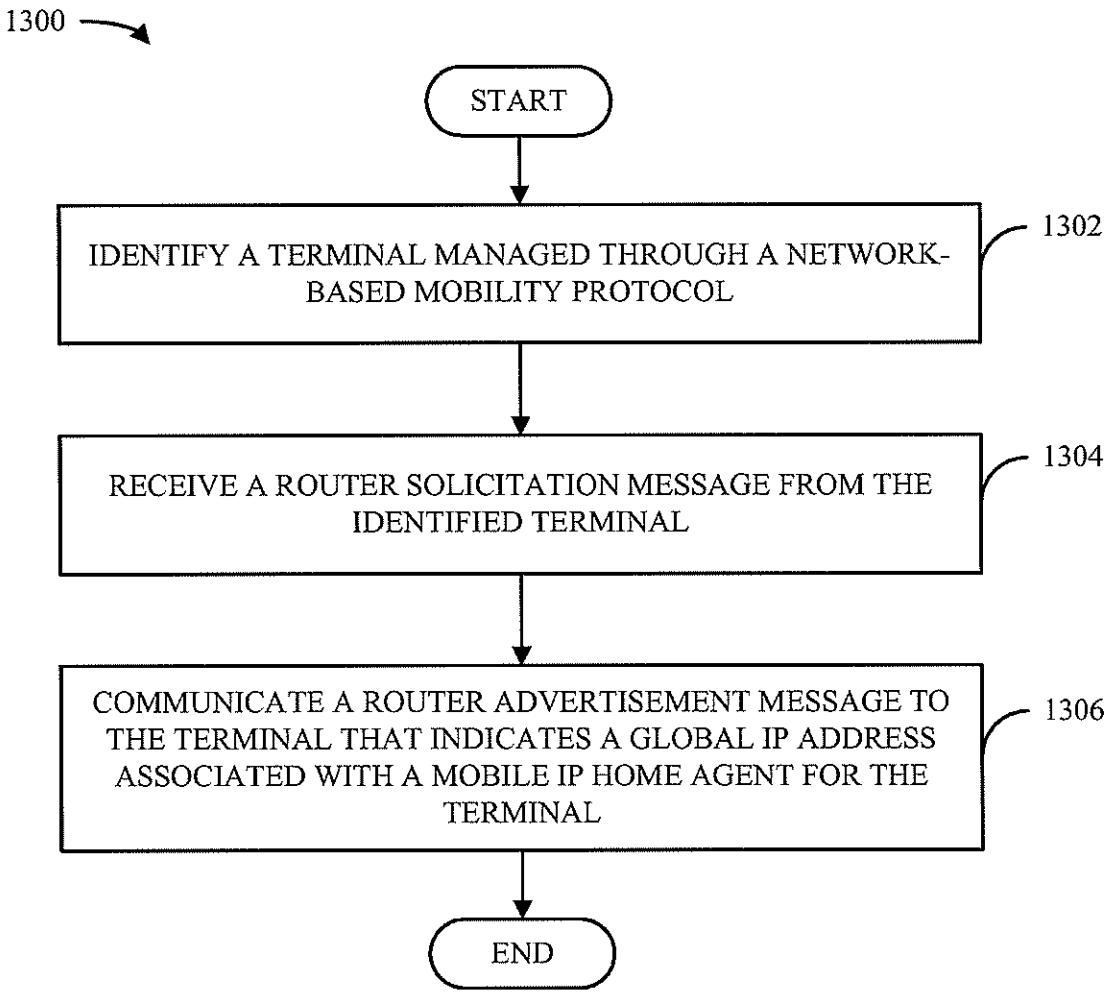
1300
START
IDENTIFY A TERMINAL MANAGED THROUGH A NETWORK-BASED MOBILITY PROTOCOL
1302
RECEIVE A ROUTER SOLICITATION MESSAGE FROM THE IDENTIFIED TERMINAL
1304
COMMUNICATE A ROUTER ADVERTISEMENT MESSAGE TO THE TERMINAL THAT INDICATES A GLOBAL IP ADDRESS ASSOCIATED WITH A MOBILE IP HOME AGENT FOR THE TERMINAL
1306
END

FIG. 13

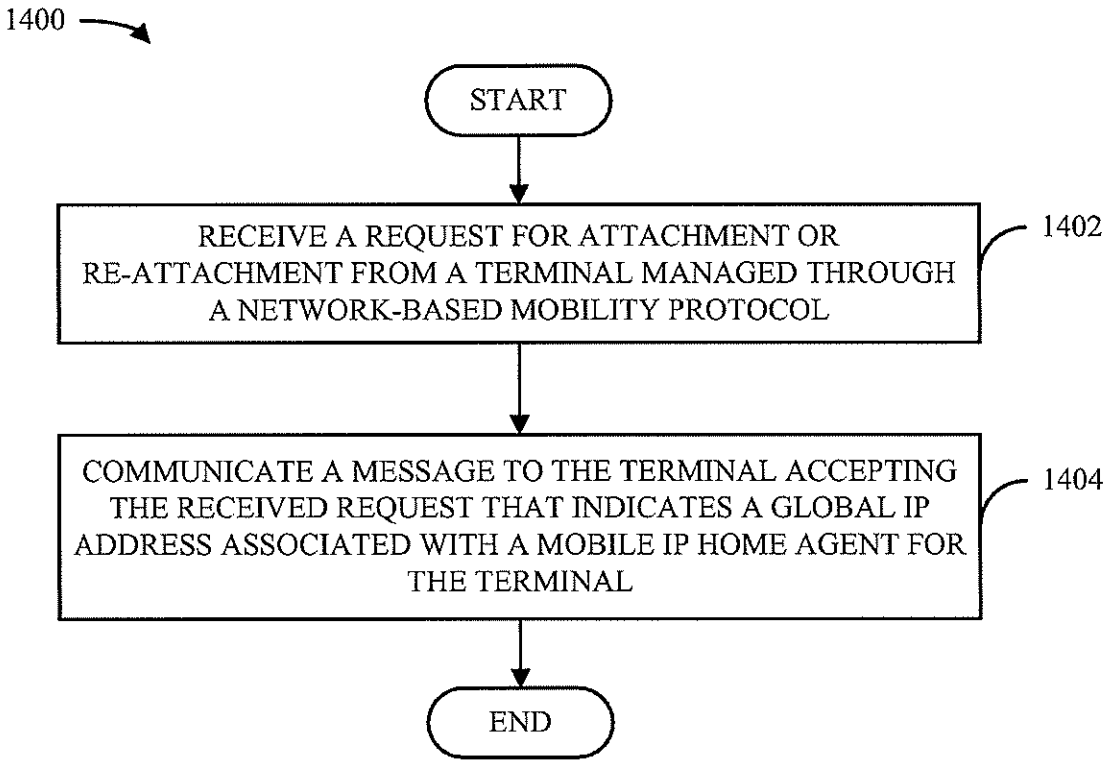
1400
START
RECEIVE A REQUEST FOR ATTACHMENT OR RE-ATTACHMENT FROM A TERMINAL MANAGED THROUGH A NETWORK-BASED MOBILITY PROTOCOL
1402
COMMUNICATE A MESSAGE TO THE TERMINAL ACCEPTING THE RECEIVED REQUEST THAT INDICATES A GLOBAL IP ADDRESS ASSOCIATED WITH A MOBILE IP HOME AGENT FOR THE TERMINAL
1404
END

FIG. 14

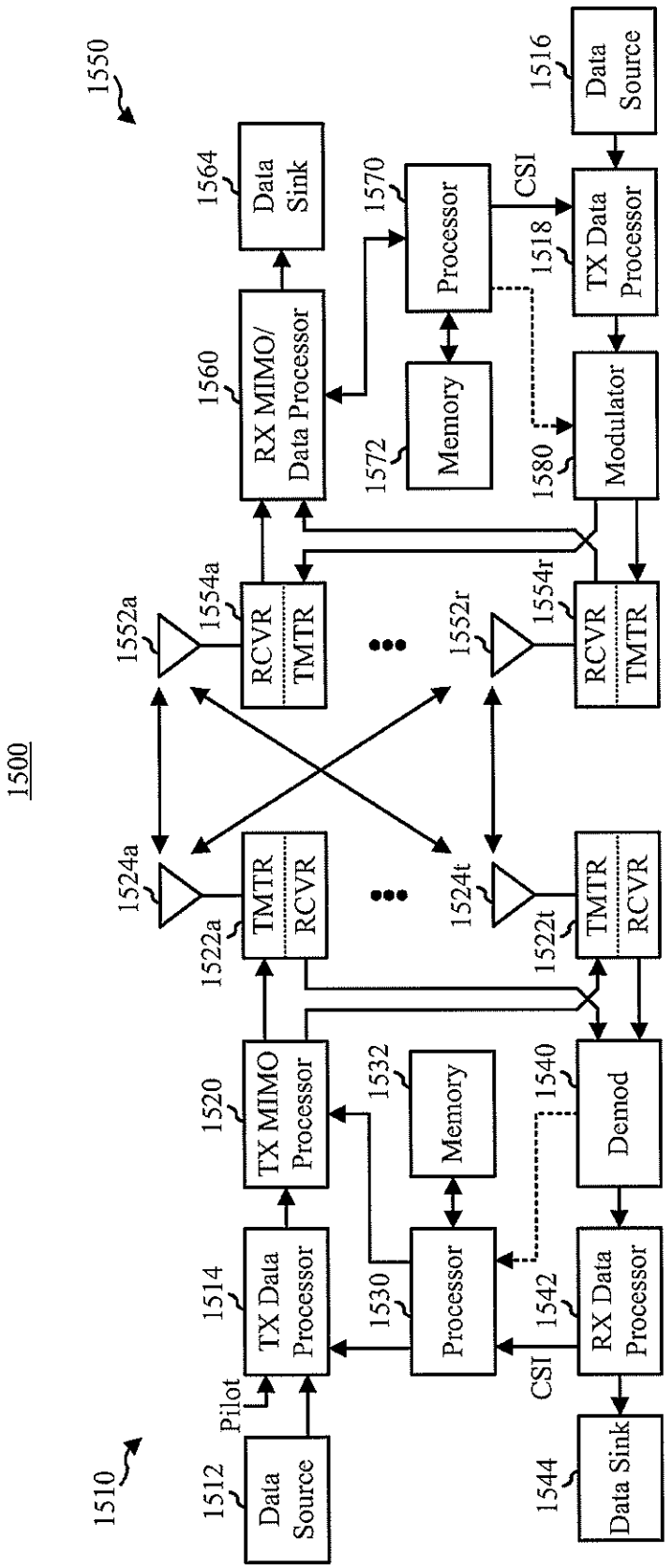
1500
1510
1512
Data Source
Pilot
1514
TX Data Processor
1520
TX MIMO Processor
1522a
TMTR
RCVR
1524a
1530
Processor
1532
Memory
1542
RX Data Processor
1544
Data Sink
CSI
1540
Demod
1522t
TMTR
RCVR
1524t
1550
1552a
1554a
RCVR
TMTR
1552r
1554r
RCVR
TMTR
1560
RX MIMO/ Data Processor
1564
Data Sink
1570
Processor
1572
Memory
CSI
1518
TX Data Processor
1516
Data Source
1580
Modulator

FIG. 15

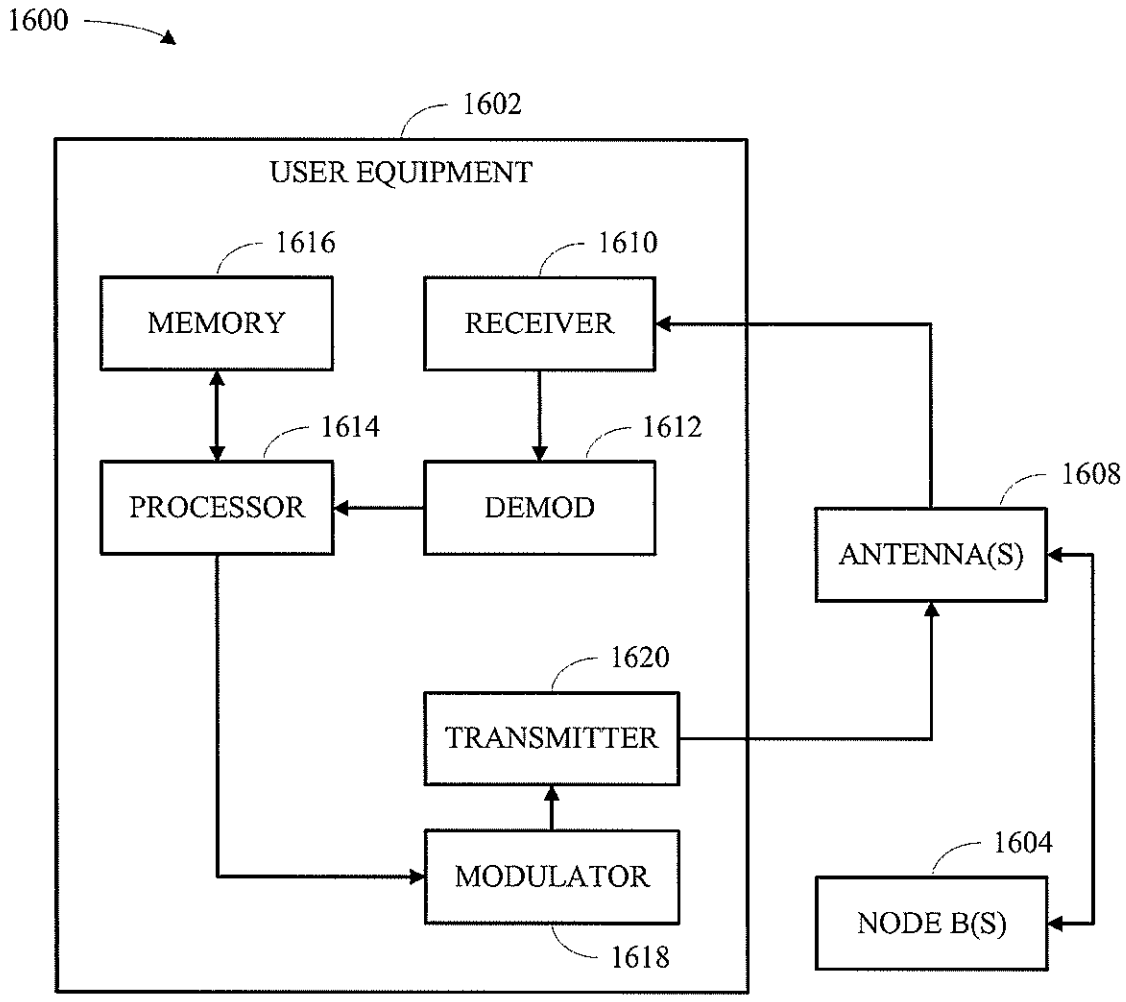
1600
1602
USER EQUIPMENT
1616
MEMORY
1610
RECEIVER
1614
PROCESSOR
1612
DEMOD
1608
ANTENNA(S)
1620
TRANSMITTER
MODULATOR
1618
1604
NODE B(S)

FIG. 16

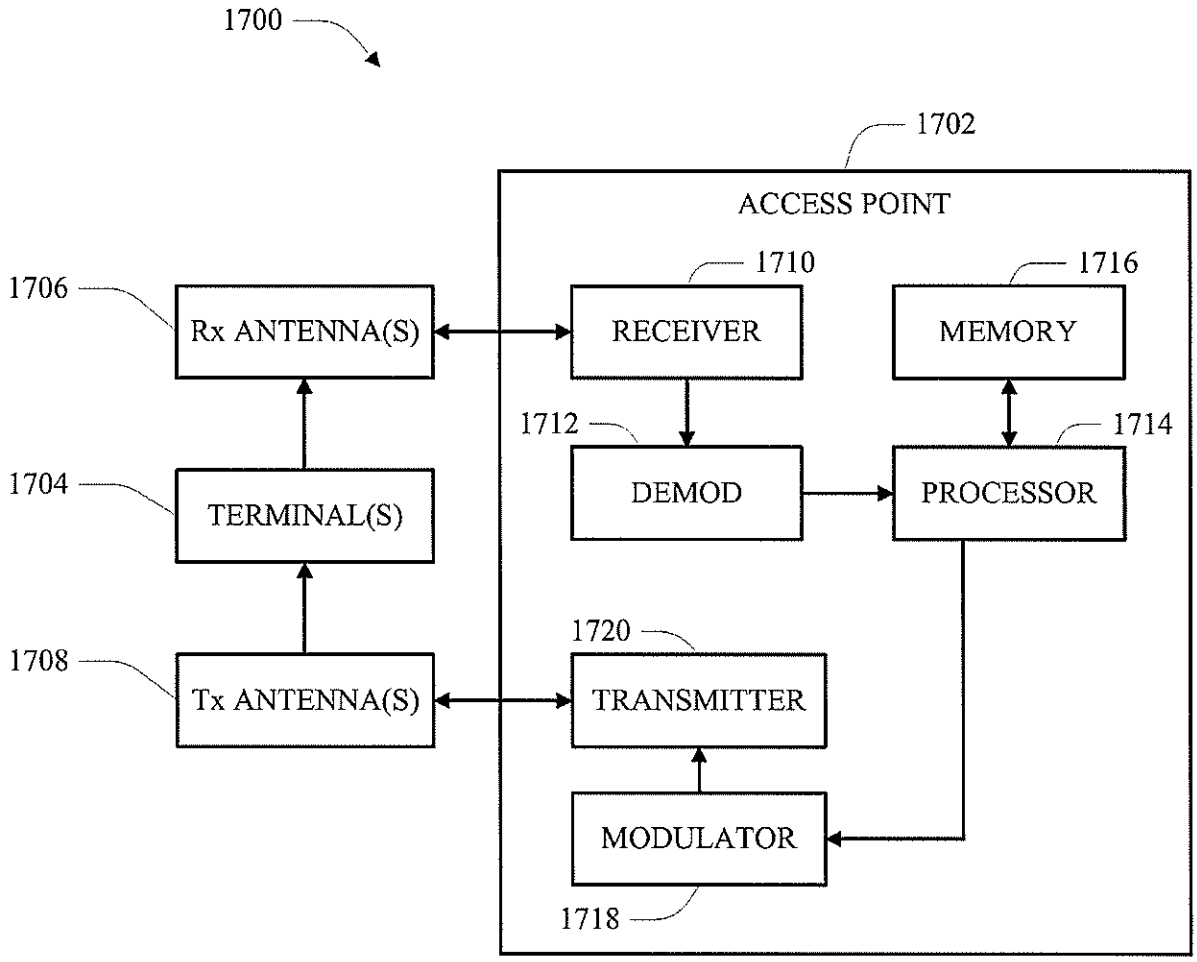
1700
1702
ACCESS POINT
1706
Rx ANTENNA(S)
1710
RECEIVER
1716
MEMORY
1712
DEMOD
1714
PROCESSOR
1704
TERMINAL(S)
1720
1708
Tx ANTENNA(S)
TRANSMITTER
MODULATOR
1718

FIG. 17

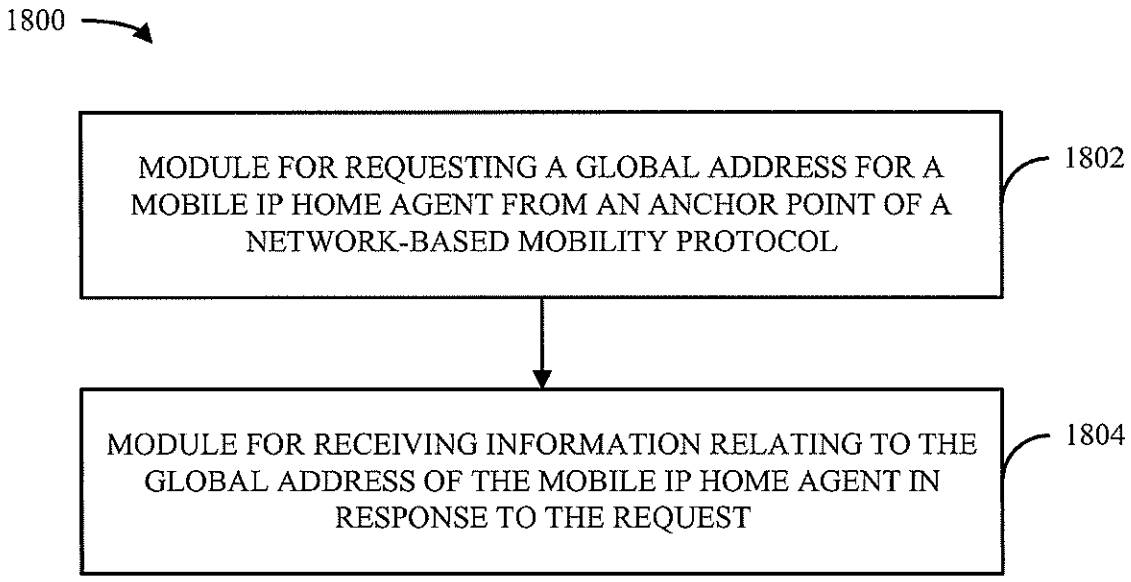
1800
MODULE FOR REQUESTING A GLOBAL ADDRESS FOR A MOBILE IP HOME AGENT FROM AN ANCHOR POINT OF A NETWORK-BASED MOBILITY PROTOCOL
1802
MODULE FOR RECEIVING INFORMATION RELATING TO THE GLOBAL ADDRESS OF THE MOBILE IP HOME AGENT IN RESPONSE TO THE REQUEST
1804

FIG. 18

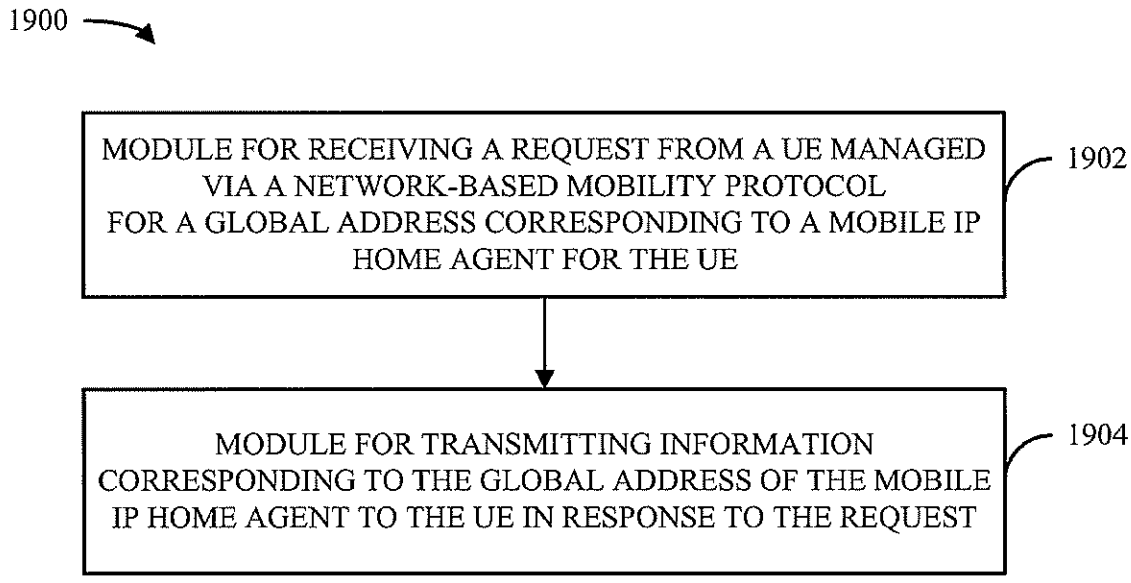
1900
MODULE FOR RECEIVING A REQUEST FROM A UE MANAGED VIA A NETWORK-BASED MOBILITY PROTOCOL FOR A GLOBAL ADDRESS CORRESPONDING TO A MOBILE IP HOME AGENT FOR THE UE
1902
MODULE FOR TRANSMITTING INFORMATION CORRESPONDING TO THE GLOBAL ADDRESS OF THE MOBILE IP HOME AGENT TO THE UE IN RESPONSE TO THE REQUEST
1904

FIG. 19