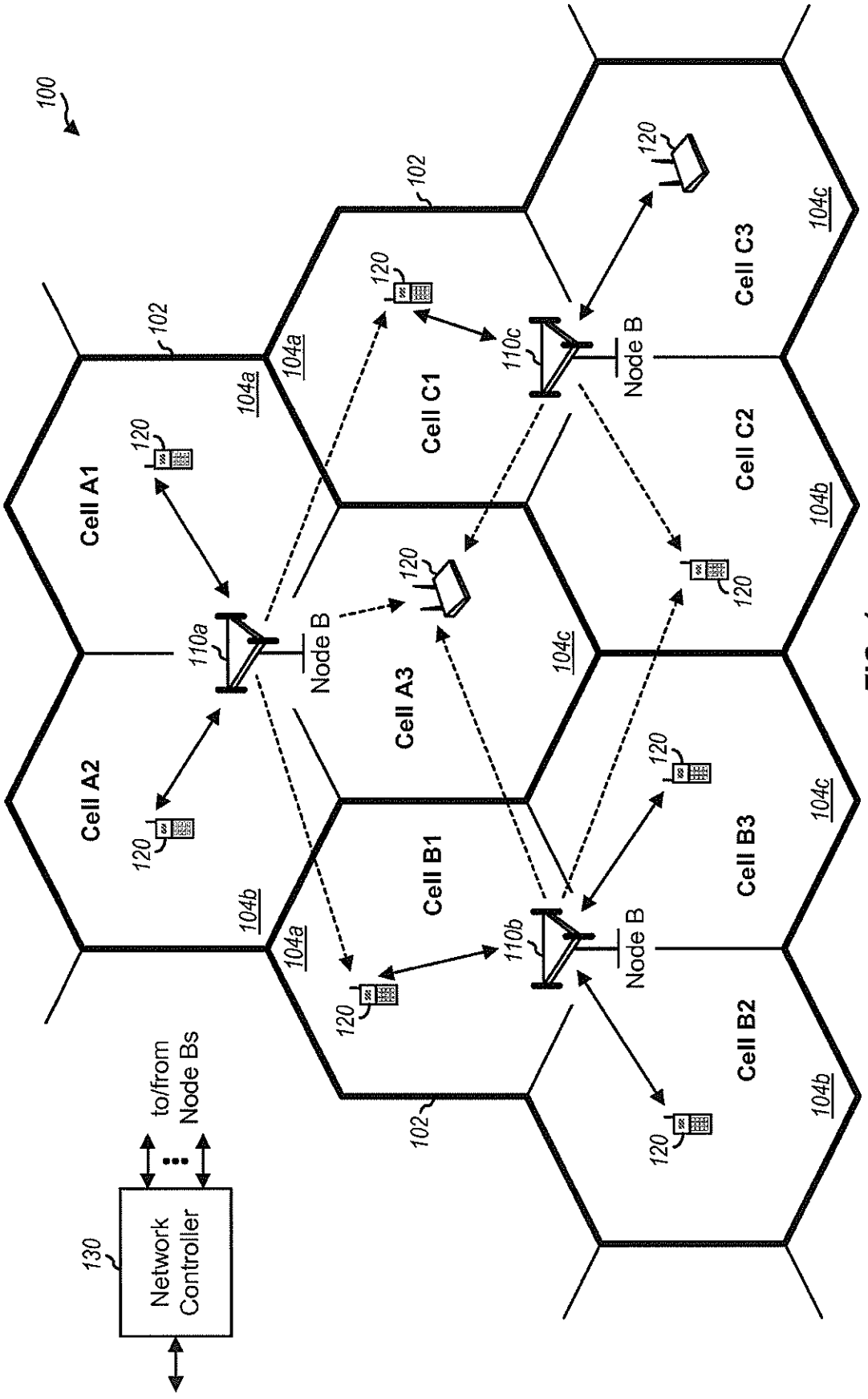

100
102
104a
104b
104c
Cell A1
Cell A2
Cell A3
Cell B1
Cell B2
Cell B3
Cell C1
Cell C2
Cell C3
Node B
110a
110b
110c
120
130
Network Controller
to/from Node Bs

FIG. 1

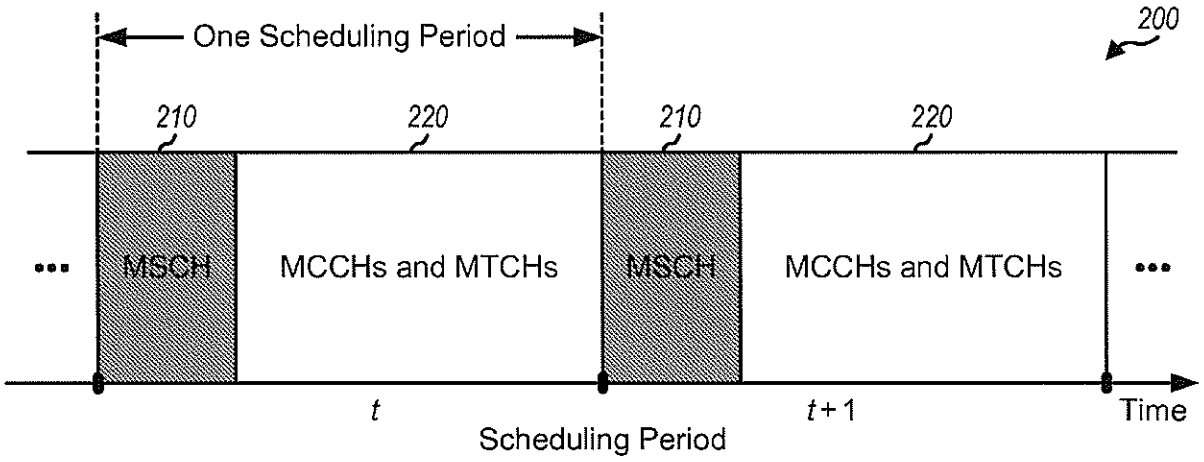

One Scheduling Period
200
210
220
210
220
MSCH
MCCHs and MTCHs
MSCH
MCCHs and MTCHs
t
t+1
Time
Scheduling Period

FIG. 2

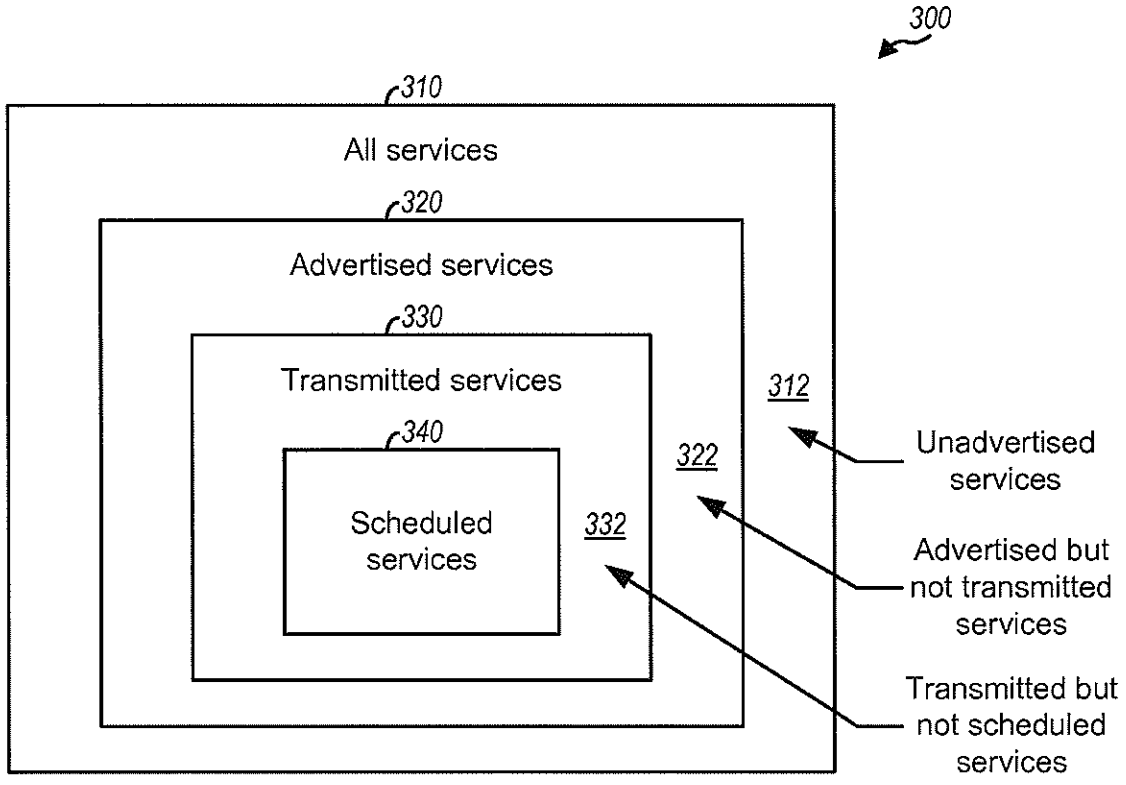

300
310
All services
320
Advertised services
330
Transmitted services
340
Scheduled services
312
322
332
Unadvertised services
Advertised but not transmitted services
Transmitted but not scheduled services

FIG. 3

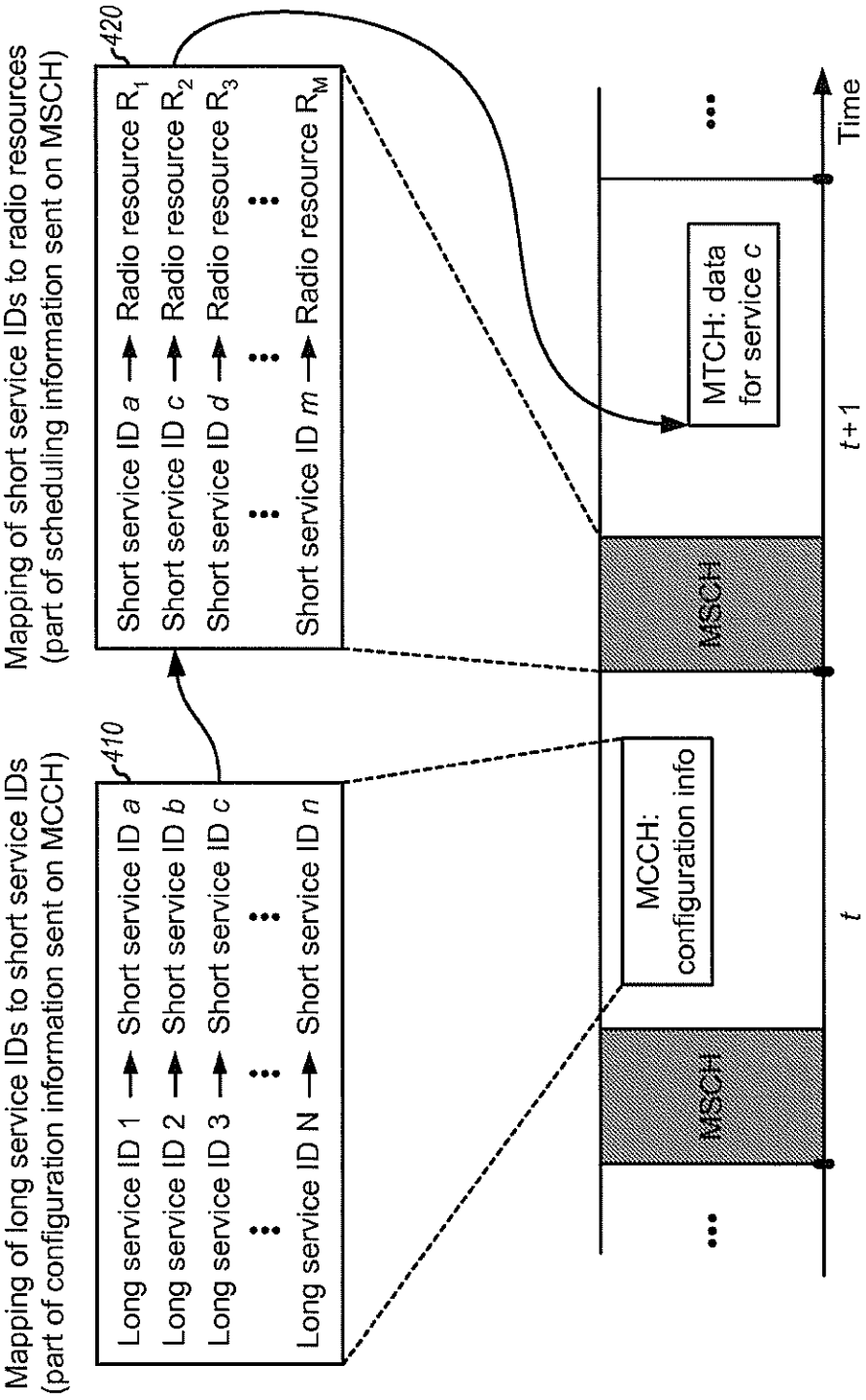

Mapping of long service IDs to short service IDs
(part of configuration information sent on MCCH)
410
Long service ID 1 → Short service ID a
Long service ID 2 → Short service ID b
Long service ID 3 → Short service ID c
Long service ID N → Short service ID n
Mapping of short service IDs to radio resources
(part of scheduling information sent on MSCH)
420
Short service ID a → Radio resource R1
Short service ID c → Radio resource R2
Short service ID d → Radio resource R3
Short service ID m → Radio resource RM
MCCH: configuration info
MSCH
MTCH: data for service c
MSCH
t
t+1
Time
Scheduling Period

FIG. 4

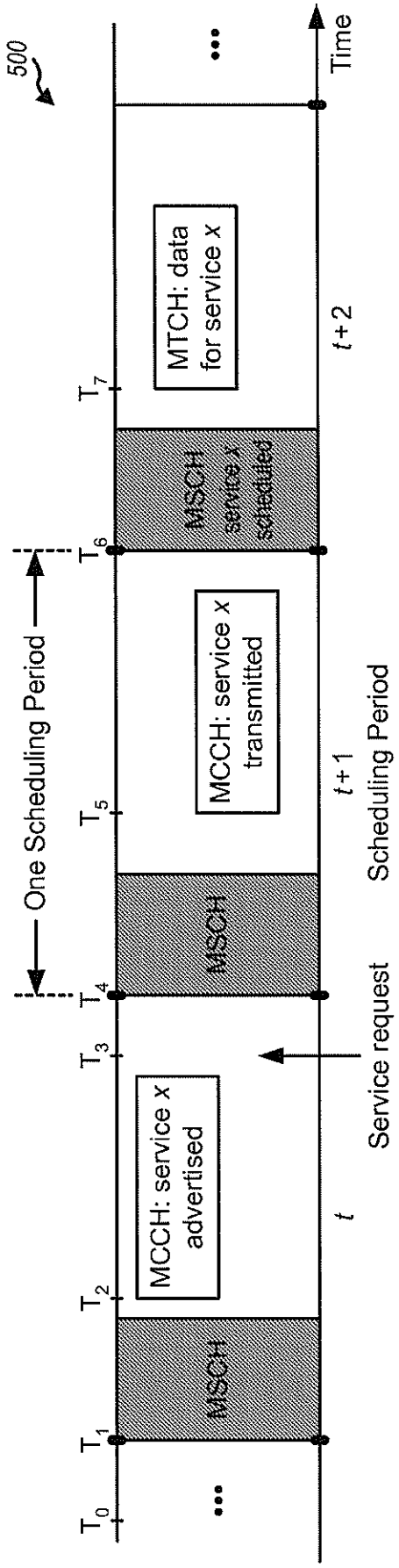

500
Time
MTCH: data for service x
MSCH service x scheduled
MCCH: service x transmitted
MSCH
MCCH: service x advertised
One Scheduling Period
Scheduling Period
Service request
t
t+1
t+2
T0
T1
T2
T3
T4
T5
T6
T7

FIG. 5

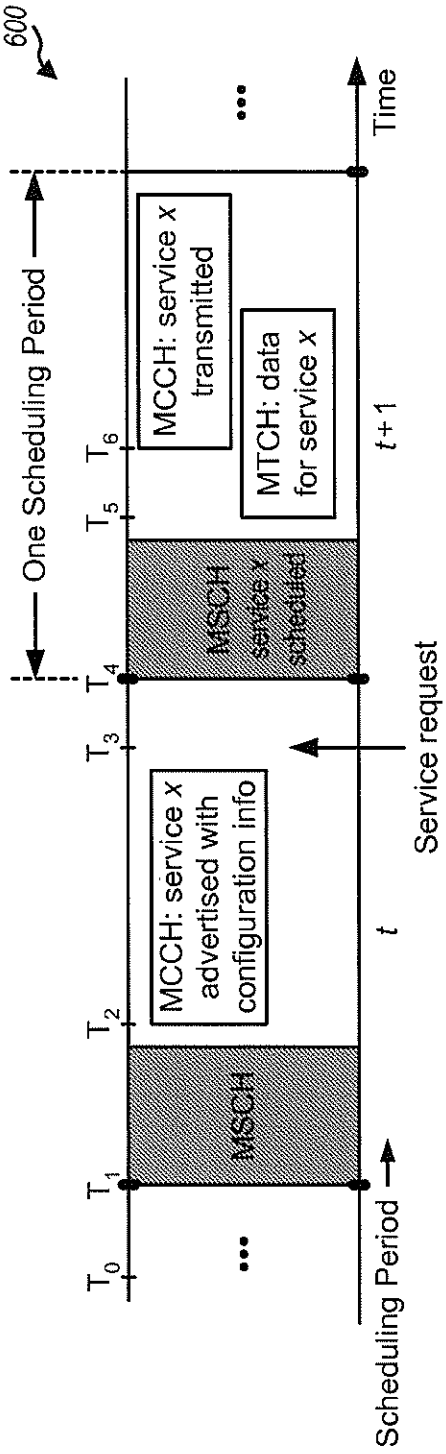

600
Time
MCCH: service x transmitted
MTCH: data for service x
MSCH service x scheduled
MCCH: service x advertised with configuration info
MSCH
One Scheduling Period
Scheduling Period
Service request
t
t+1
T0
T1
T2
T3
T4
T5
T6

FIG. 6

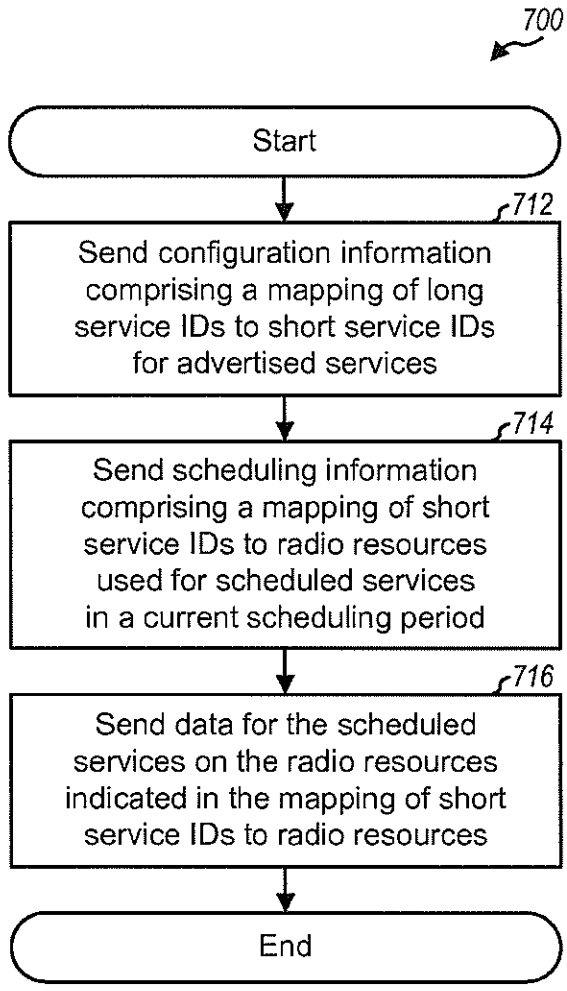

700
Start
712
Send configuration information comprising a mapping of long service IDs to short service IDs for advertised services
714
Send scheduling information comprising a mapping of short service IDs to radio resources used for scheduled services in a current scheduling period
716
Send data for the scheduled services on the radio resources indicated in the mapping of short service IDs to radio resources
End

FIG. 7

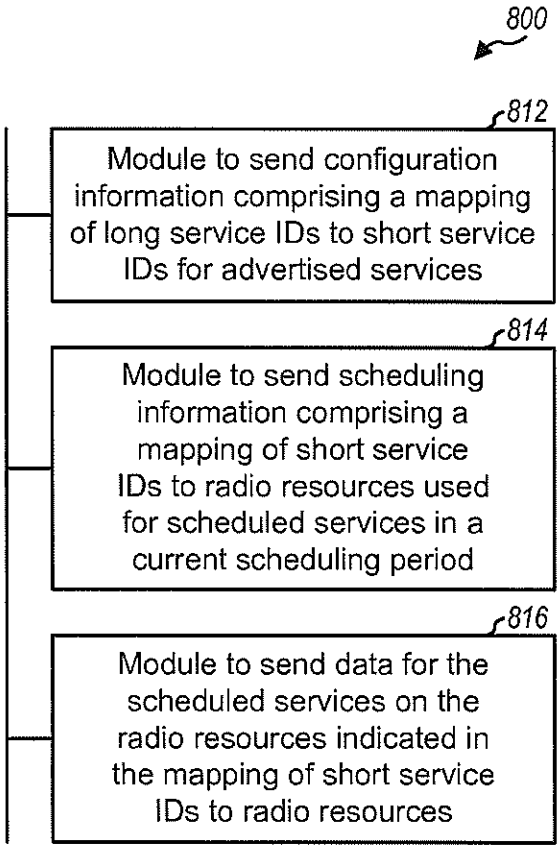

800
812
Module to send configuration information comprising a mapping of long service IDs to short service IDs for advertised services
814
Module to send scheduling information comprising a mapping of short service IDs to radio resources used for scheduled services in a current scheduling period
816
Module to send data for the scheduled services on the radio resources indicated in the mapping of short service IDs to radio resources

FIG. 8

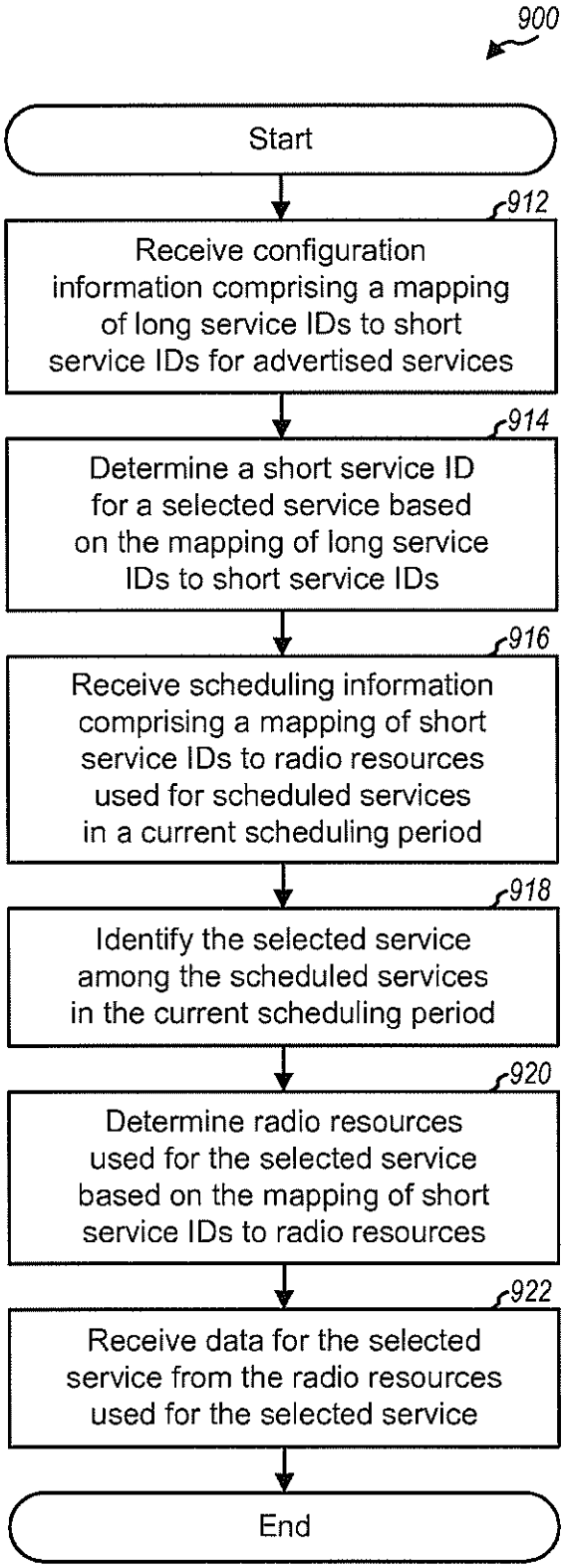

900
Start
912
Receive configuration information comprising a mapping of long service IDs to short service IDs for advertised services
914
Determine a short service ID for a selected service based on the mapping of long service IDs to short service IDs
916
Receive scheduling information comprising a mapping of short service IDs to radio resources used for scheduled services in a current scheduling period
918
Identify the selected service among the scheduled services in the current scheduling period
920
Determine radio resources used for the selected service based on the mapping of short service IDs to radio resources
922
Receive data for the selected service from the radio resources used for the selected service
End

FIG. 9

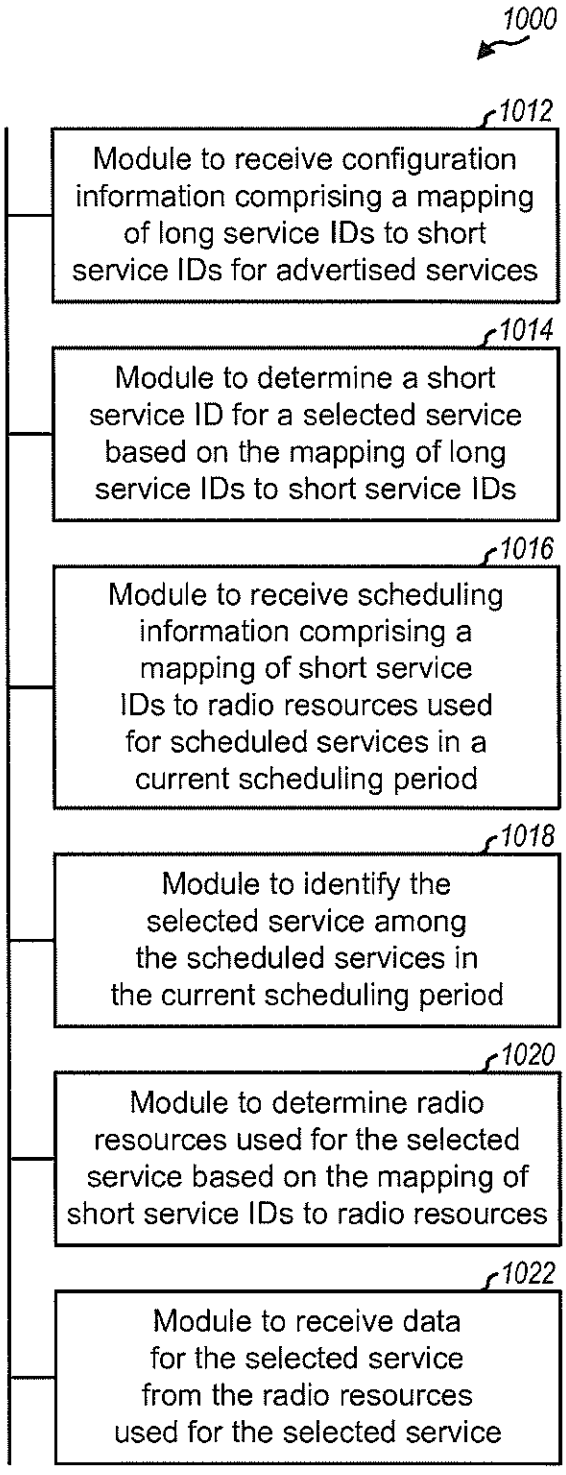

1000
1012
Module to receive configuration information comprising a mapping of long service IDs to short service IDs for advertised services
1014
Module to determine a short service ID for a selected service based on the mapping of long service IDs to short service IDs
1016
Module to receive scheduling information comprising a mapping of short service IDs to radio resources used for scheduled services in a current scheduling period
1018
Module to identify the selected service among the scheduled services in the current scheduling period
1020
Module to determine radio resources used for the selected service based on the mapping of short service IDs to radio resources
1022
Module to receive data for the selected service from the radio resources used for the selected service

FIG. 10

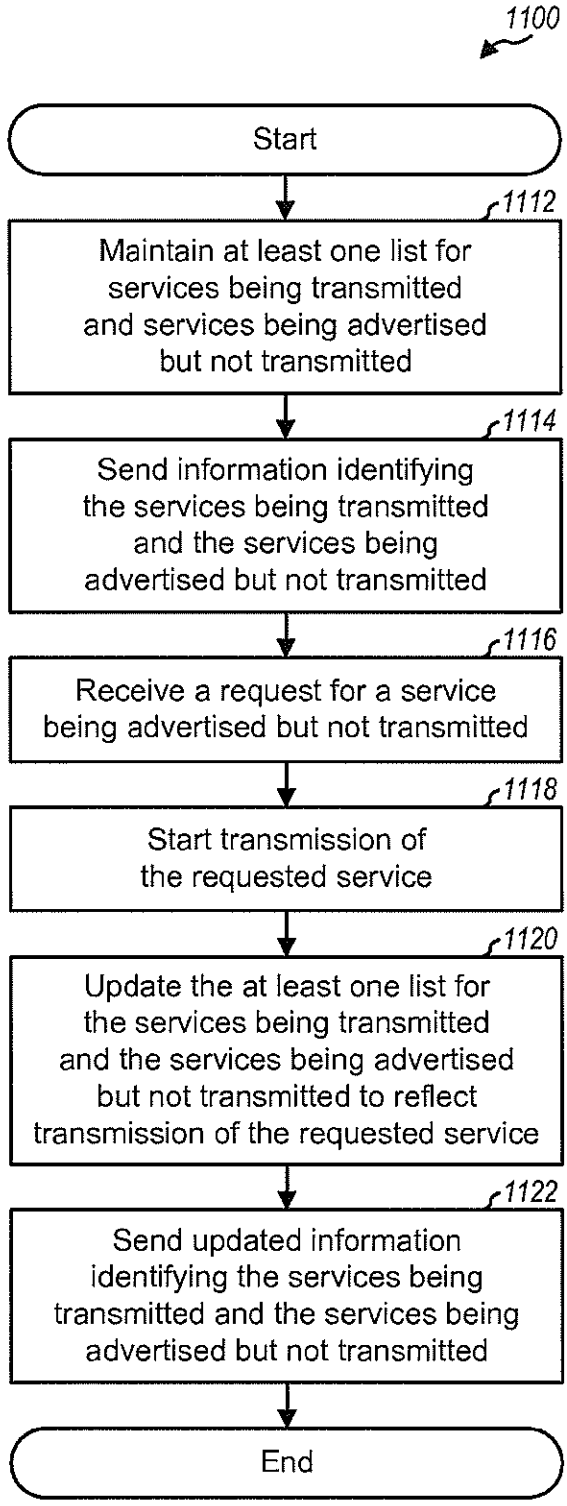

1100
Start
1112
Maintain at least one list for services being transmitted and services being advertised but not transmitted
1114
Send information identifying the services being transmitted and the services being advertised but not transmitted
1116
Receive a request for a service being advertised but not transmitted
1118
Start transmission of the requested service
1120
Update the at least one list for the services being transmitted and the services being advertised but not transmitted to reflect transmission of the requested service
1122
Send updated information identifying the services being transmitted and the services being advertised but not transmitted
End

FIG. 11

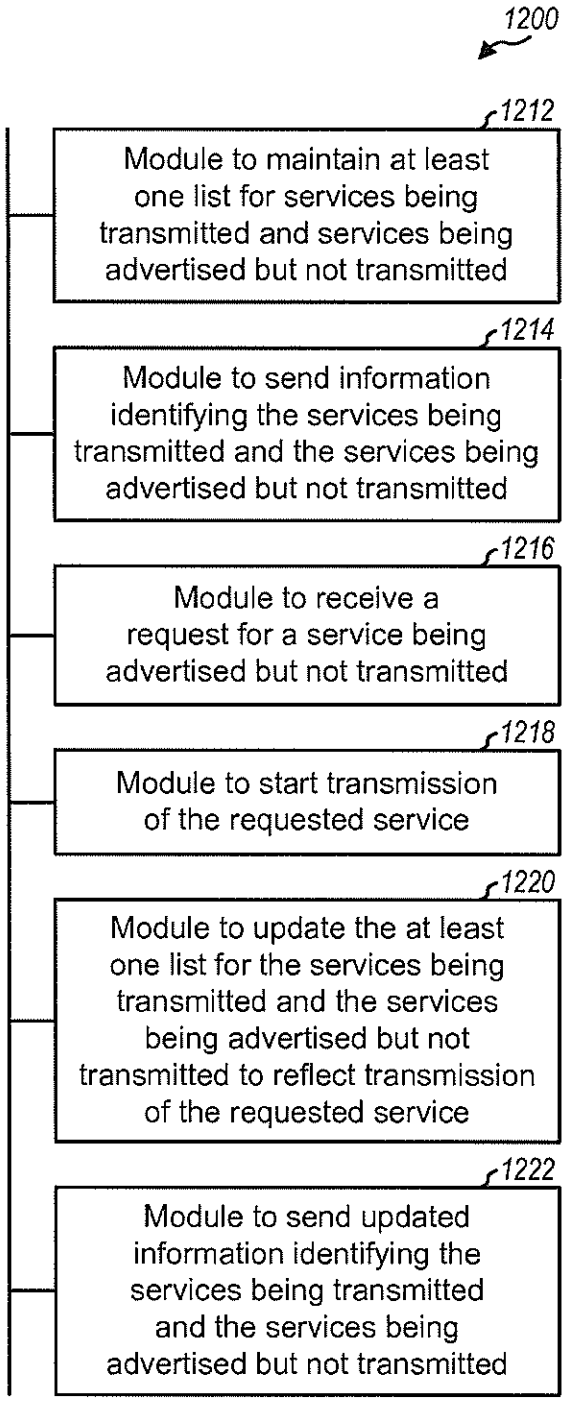

1200
1212
Module to maintain at least one list for services being transmitted and services being advertised but not transmitted
1214
Module to send information identifying the services being transmitted and the services being advertised but not transmitted
1216
Module to receive a request for a service being advertised but not transmitted
1218
Module to start transmission of the requested service
1220
Module to update the at least one list for the services being transmitted and the services being advertised but not transmitted to reflect transmission of the requested service
1222
Module to send updated information identifying the services being transmitted and the services being advertised but not transmitted

FIG. 12

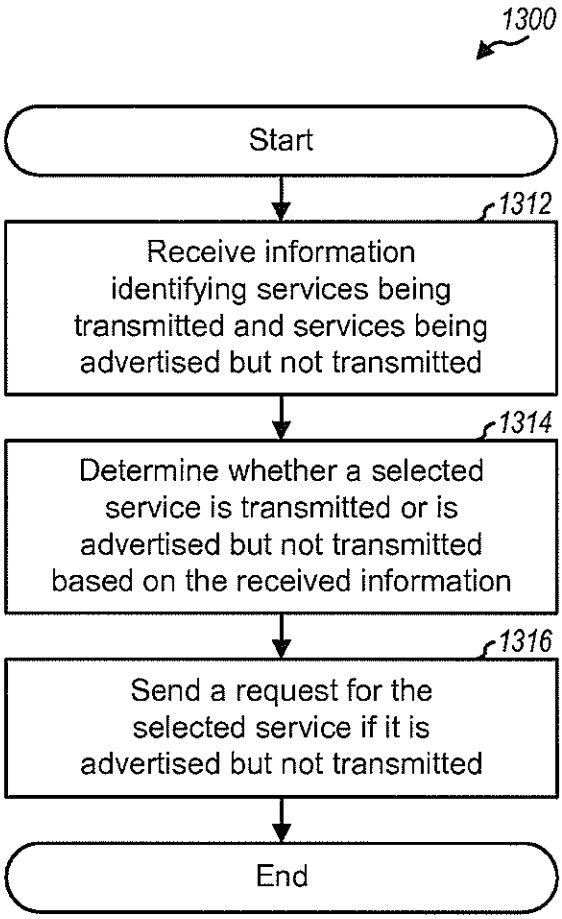

1300
Start
1312
Receive information identifying services being transmitted and services being advertised but not transmitted
1314
Determine whether a selected service is transmitted or is advertised but not transmitted based on the received information
1316
Send a request for the selected service if it is advertised but not transmitted
End

FIG. 13

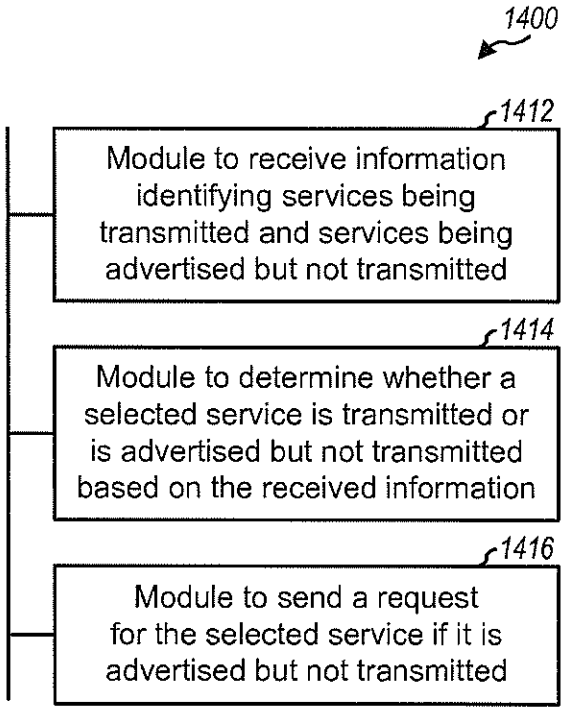

1400
1412
Module to receive information identifying services being transmitted and services being advertised but not transmitted
1414
Module to determine whether a selected service is transmitted or is advertised but not transmitted based on the received information
1416
Module to send a request for the selected service if it is advertised but not transmitted

FIG. 14

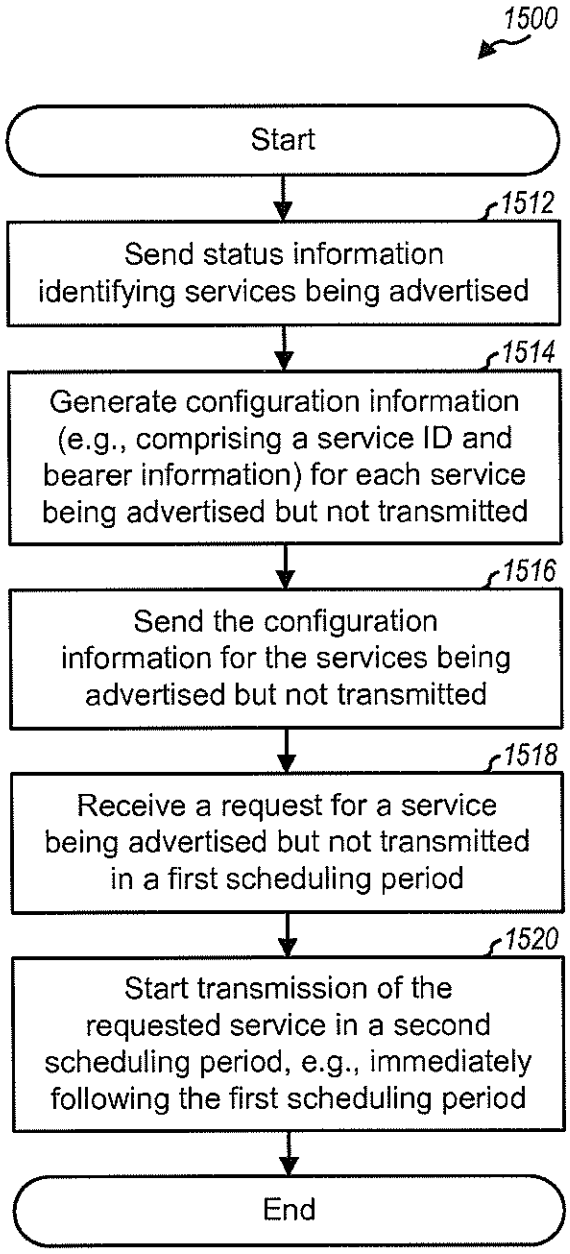

1500
Start
1512
Send status information identifying services being advertised
1514
Generate configuration information (e.g., comprising a service ID and bearer information) for each service being advertised but not transmitted
1516
Send the configuration information for the services being advertised but not transmitted
1518
Receive a request for a service being advertised but not transmitted in a first scheduling period
1520
Start transmission of the requested service in a second scheduling period, e.g., immediately following the first scheduling period
End

FIG. 15

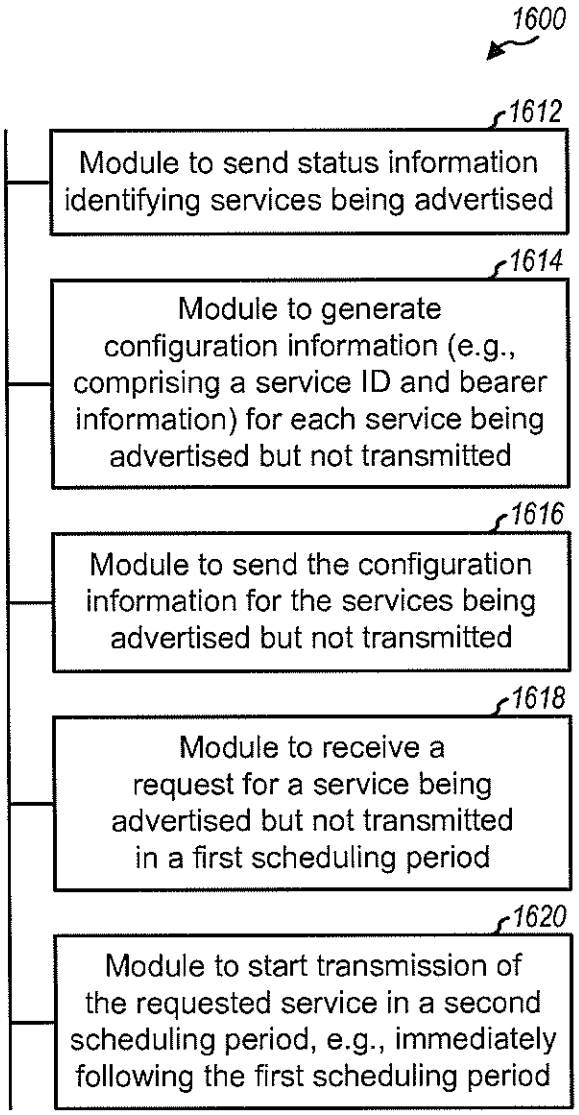

1600
1612
Module to send status information identifying services being advertised
1614
Module to generate configuration information (e.g., comprising a service ID and bearer information) for each service being advertised but not transmitted
1616
Module to send the configuration information for the services being advertised but not transmitted
1618
Module to receive a request for a service being advertised but not transmitted in a first scheduling period
1620
Module to start transmission of the requested service in a second scheduling period, e.g., immediately following the first scheduling period

FIG. 16

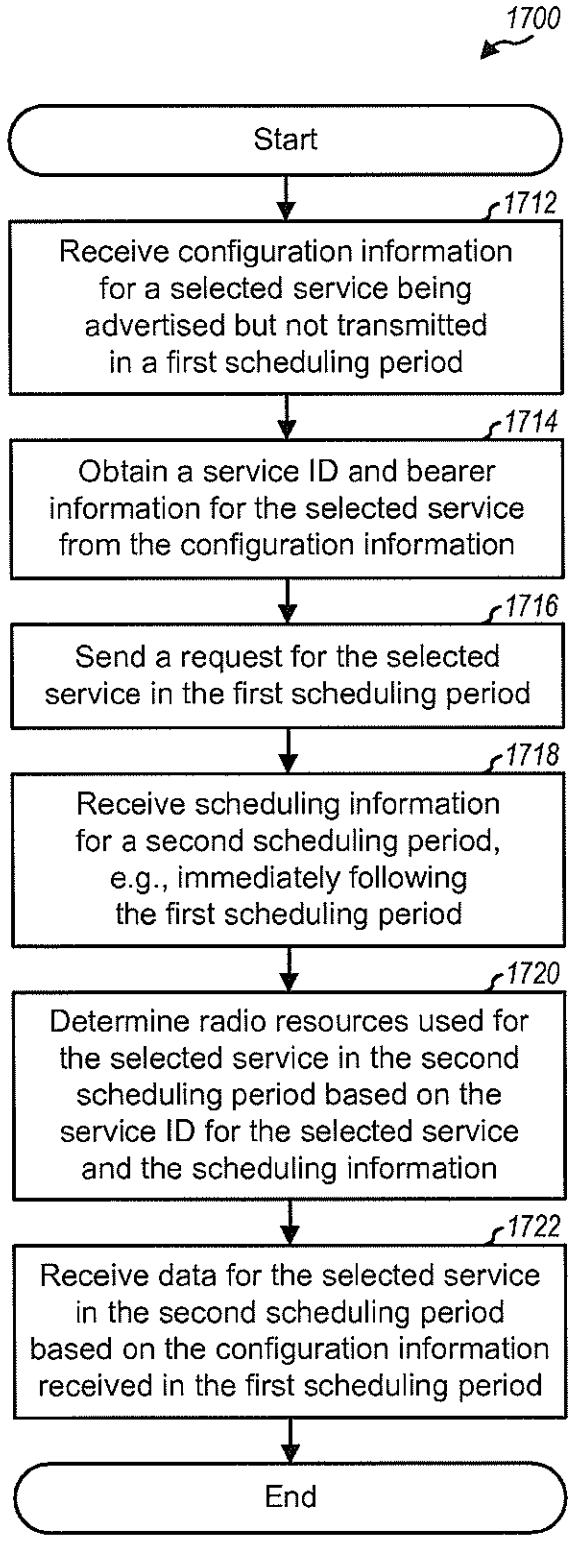

1700
Start
1712
Receive configuration information for a selected service being advertised but not transmitted in a first scheduling period
1714
Obtain a service ID and bearer information for the selected service from the configuration information
1716
Send a request for the selected service in the first scheduling period
1718
Receive scheduling information for a second scheduling period, e.g., immediately following the first scheduling period
1720
Determine radio resources used for the selected service in the second scheduling period based on the service ID for the selected service and the scheduling information
1722
Receive data for the selected service in the second scheduling period based on the configuration information received in the first scheduling period
End

FIG. 17

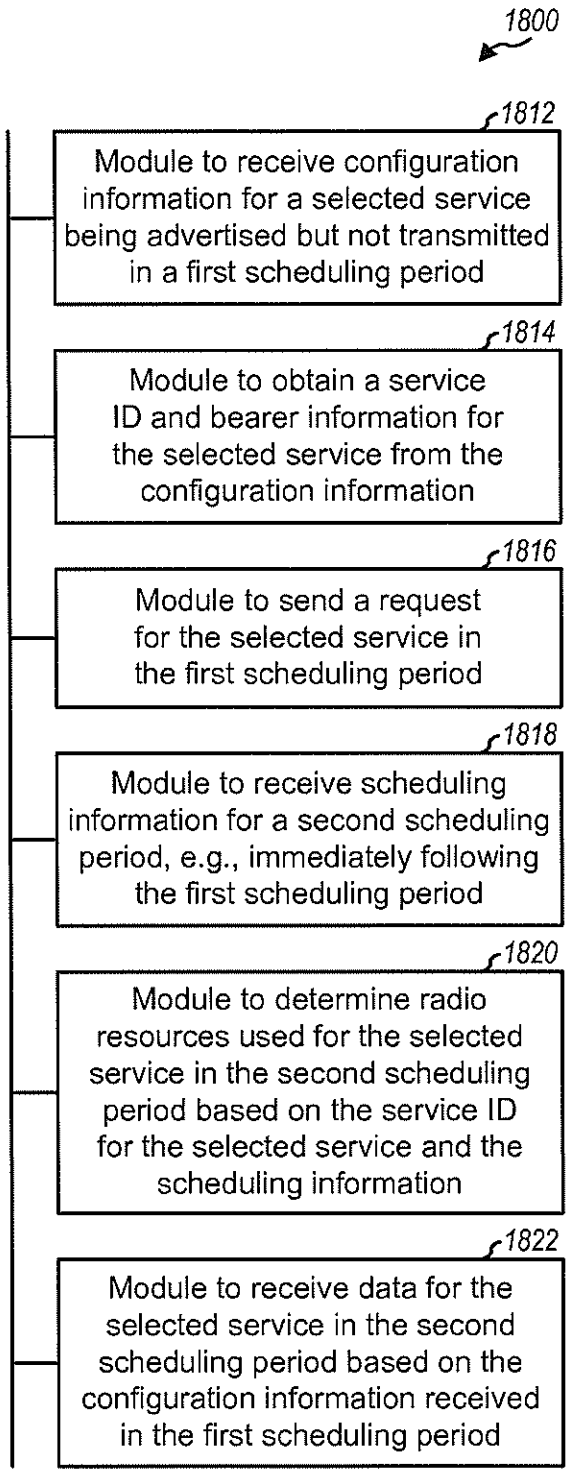

1800
1812
Module to receive configuration information for a selected service being advertised but not transmitted in a first scheduling period
1814
Module to obtain a service ID and bearer information for the selected service from the configuration information
1816
Module to send a request for the selected service in the first scheduling period
1818
Module to receive scheduling information for a second scheduling period, e.g., immediately following the first scheduling period
1820
Module to determine radio resources used for the selected service in the second scheduling period based on the service ID for the selected service and the scheduling information
1822
Module to receive data for the selected service in the second scheduling period based on the configuration information received in the first scheduling period

FIG. 18

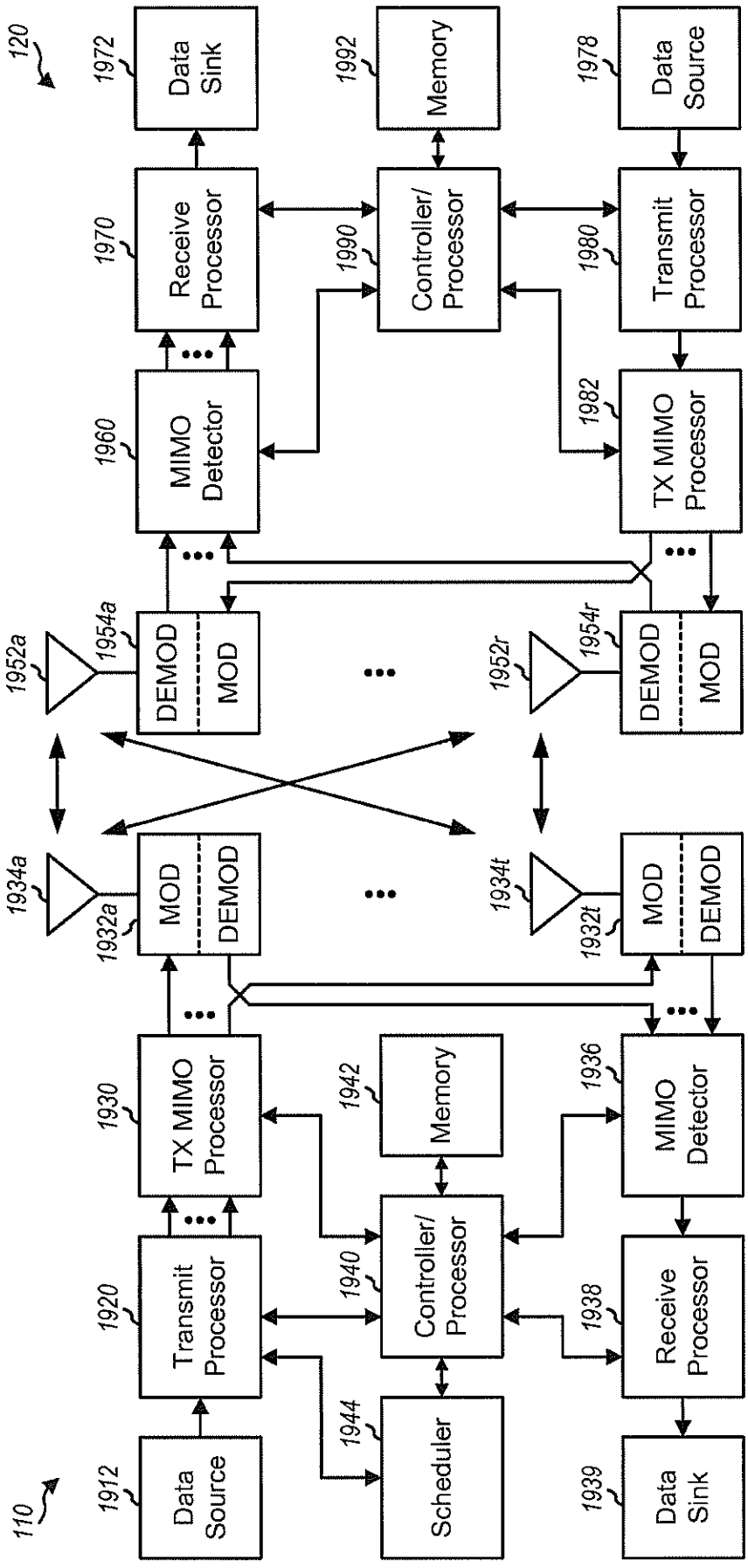

110
120
1912
Data Source
1920
Transmit Processor
1930
TX MIMO Processor
1932a
MOD
DEMOD
1934a
1934t
1932t
1936
MIMO Detector
1938
Receive Processor
1939
Data Sink
1940
Controller/ Processor
1942
Memory
1944
Scheduler
1952a
1952r
1954a
1954r
DEMOD
MOD
1960
MIMO Detector
1970
Receive Processor
1972
Data Sink
1978
Data Source
1980
Transmit Processor
1982
TX MIMO Processor
1990
Controller/ Processor
1992
Memory

FIG. 19